Summer 1987

PREMIERE ISSUE

RESET

The ST Almanac

Magazine
Volume 1, Number 1
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RESET Magazine
The ST Almanac
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Summer 1987
Volume 1, Number 1

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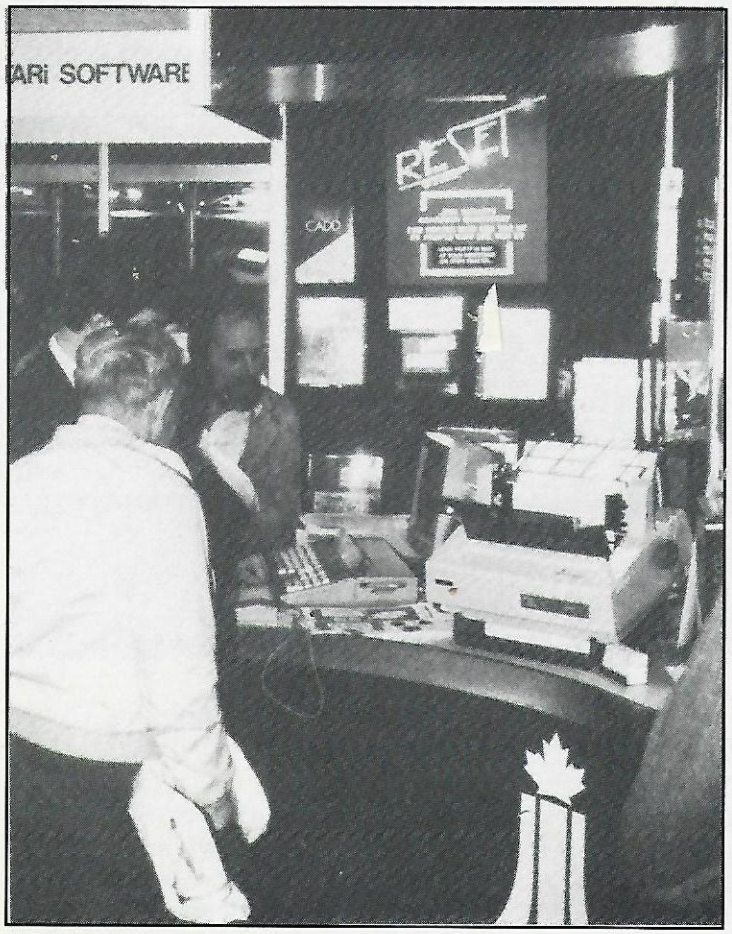
Editorial

Welcome to the first issue of RESET Magazine; the new quarterly magazine devoted to Atari ST computers. Although we plan to keep you up to date on what's new (both good and bad), in the ST world; we will focus more on how to use the products. There are many magazines that will tell you the features of any given product, but there are few that explain how to use them.

A quick look at the articles on the *Magic Sac*, *Publishing Partner*, *Starglider*, and *How to Draw...* will show that we try to go beyond the standard review-oriented fare. We feel that ideas on how to use the hardware and software products are just as important as being told the features of the product.

Each issue we plan to feature detailed information and user guides that will increase your productivity. Anybody who uses Publishing Partner will find the Quick Reference sheet on page 26 to be worth the price of the magazine. The same holds true for the Starglider map for gaming enthusiasts; the tips in the *How to Draw..* article for computer artists; and the information in the *Magic Sac* article for MacIntosh emulation fans. Our articles *Beyond Word Processing* and *Artificial Intelligence* will open your mind to new concepts in computing; and our column *Byte the hand that feeds you* will warp that same mind.



RESET Magazine was first announced in Toronto in the Spring

Contributions to RESET Magazine are welcome. See the *Author's Guide* on page 60 for more information. Although this first issue has been written mainly with local talent from the Ottawa, Canada area, we encourage published authors and potential authors to consider writing for RESET. There is a lack of advertising in this first issue since it seems impossible to convince manufacturers to invest in an unseen product. We hope to remedy this by next issue.

RESET Magazine is written for people who use their computer, by people who use their computer. Please help us by returning the survey card with your comments and criticisms. We value your opinions and hope to mould RESET Magazine into the most useful ST magazine that you purchase.

Robert Thompson

Bob Thompson
Editor
Reset Magazine

The Front Cover

The three computer art images on the front cover were created with Degas. Jim Turner, the RESET Art Director, created the demon and the space shuttle images. Hooman Simyar, the author of the *How to Draw...* article created the Stardestroyer image.

Production of RESET Magazine

RESET Magazine is produced with ST computers. Raw text is generated by authors on various ST word processors and submitted. The text is electronically edited, then converted into Publishing Partner format. The Publishing Partner pages are laser printed, proofed, then typeset on a Linotronic L300. Any conventional artwork is pasted on the final typeset Publishing Partner pages.

Mailbag

The Mailbag is provided as a forum for readers to voice their opinions, concerns, and suggestions regarding Reset Magazine, Atari Computers, hardware, software, and anything else that may be of benefit to other readers.

Please feel free to write to Mailbag at the following address:

Mailbag
RESET Magazine
P.O. Box 5273
Station 'F'
Ottawa, Ontario,
Canada K2C 3H5

Q: I have two questions, concerning the Mega-ST and the blitter chip. First off, will current ST software and peripherals be compatible with the new computers? What does the blitter chip do?

Peter Ritchie
Kanata, Ont.

A: The Mega-ST WILL be compatible with current software and peripherals according to Atari. The blitter chip may not be sold with first- run Mega's however. The blitter is a chip dedicated to memory management, and accomplishes this task 5 to 10 times faster than the MC68000. The blitter is not a math co-processor.

Q: *When can I expect to see ST versions of Lotus 1-2-3 and DBase?*

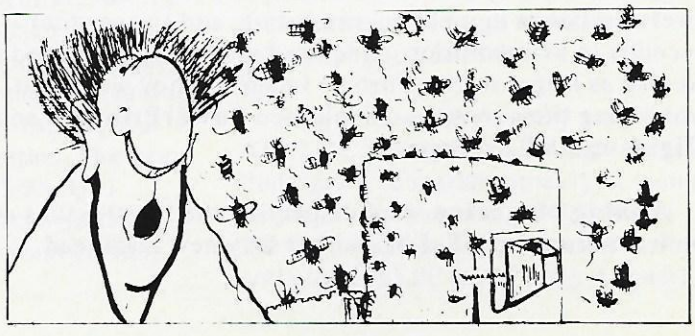
William Demmery
Ottawa, Ont.

A: There are software packages in existence which are compatible with the above mentioned titles, however the original manufacturers have not indicated any plans to release ST versions as of yet. VIP Professional spreadsheets is one Lotus clone, and dbMan is a DBase 3 work-alike.

Q: *What is the general orientation of Reset Magazine? ie. To what level of user does it address?*

Peter Ritchie
Kanata, Ont.

A: Reset will address all levels of users, beginner to advanced. By focusing on in depth tutorials and walk-throughs, Reset will introduce the reader to concepts and products, while also supplying invaluable information aimed at getting more from the Atari ST.■

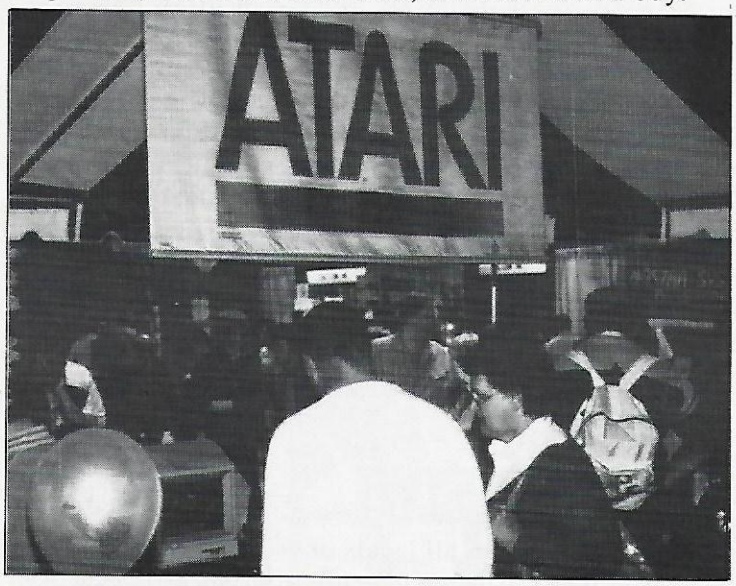


BUFFALO ATARIFEST

by Glenn Brown

A couple of months ago, I was in Buffalo, New York (for a magic convention - Fechter's Finger Flicking Frolics - but that's another story), and I managed to get free to spend a day at the Great Lakes Atarifest. Congratulations have to go out to **Tilden Ishmael** and the **Western New York Atari Users' Group** for putting on a great show. The booths included:

Alladin showing their disk magazine in both ST and XE formats. The disk as a magazine is an interesting concept, but my opinion is that Montreal's **faSTer** disk magazine ($9.95 US/$12.95 Cdn.) is a much better buy.



The Buffalo Atarifest

Alpha Systems showing the ST version of **Computereyes** ($249.00 US), the first colour digitizer for the ST. Computereyes is a hardware/software package that connects between the computer (it plugs into the cartridge slot), and any standard video source (video camera, VCR, videodisk player, etc.). Capture time is six seconds for the lowresolution 16-colour or intensity level mode, twelve seconds in medium-resolution, and twenty four seconds in hi-resolution. Acquired images can be saved to disk as Degas or NeoChrome images. They were also promoting their soon-to-be released **PowerPrint ST** and **Digisound ST** packages.

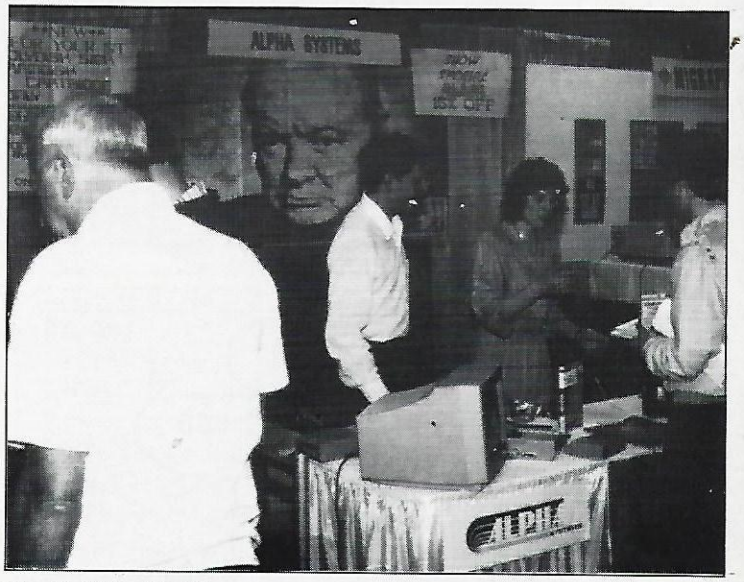
Analog Magazine were displaying the latest issues of both **Analog** and **ST-Log**, with a sexy new masthead.

Astra Systems had a bullet-proof **System HD+**, a 20 megabyte hard drive for the ST with a built-in double-sided floppy. I was impressed to see it loading files while held upside-down.

Atari were in a central tent area, with organized confusion ruling. I've been told that there was an Atari laser printer there, but I didn't see it. Overheard in the booth was the startling revelation that startup production of Megas, lasers, and PC's won't begin in Taiwan until June (it now looks like they've missed even that deadline).

Best Electronics was doing a roaring business selling **ripoff Magic Sacs** for $15.00 (plus $40.00 for the ROMs). According to the salesman, all you have to do is get the "public domain" Magic Sac software to run Macintosh emulation. To set the record straight, NO version of the Magic Sac software is public domain. (Those who are still thinking of the ripoff route should read my Magic Sac article elsewhere in this issue of reSeT). However, I couldn't resist buying a 6" joystick extender (I have a 1040ST).

Cal-Com had their whole store there: a very good looking display of software. I bought **K-Switch**, **Goldrunner**, and **NeoChrome 1.0**.



The Buffalo Atarifest

Inteletek is a company formed by the Western New York Atari Users' Group to market Atari-related

continued on page 13.

STuff

Glenn Brown

Welcome to ST/uff, which is just that: ST stuff: news, reviews and gossip about Atari, the ST, and computers in general. The opinions expressed in this column are just that, my opinions, so please keep the hate mail down.

NEWS

The word is that work is continuing on the **TT**, is to be a box that plugs into the ST's DMA port. The prototype has a pair of DMA ports and both a 68020 (32-bit) chip and a 68881 (math co- processor) chip.

Those who have been holding their breath for Batteries Included to release **Paperclip Elite** better start breathing: the company has folded. The story I hear is that ITM promised to inject cash into the company and never followed through. Most of the talent (Mark Skapinker, Michael Reichman, Steven Couchman, and others) had left before it all hit the fan. Marty Herzog is now Market Support Manager for Atari Canada. Interestingly enough, **Electronic Arts** has bought the company, although it appears that all our good friend **Trip Hawkins** got was the shell. In a electronic conference this spring, Trip promised to "improve" the Batteries line by adding copy protection. Someone should tell him that titles like DEGAS, DEGAS Elite, and Thunder! became the best selling ST software to date without copy protection.

8-bit owners and those of us who upgraded to ST's are familiar with **Happy Computers**, and their Happy drive modifications to 8- bit Atari disk drives. For those who don't know, Richard Adams (brother of Scott, of Adventure International fame) formed Happy Computing to manufacture and sell a hardware modification to the 8-bit Atari disk drives that allowed the duplication of heavily protected software. The modification has several pleasant side effects: true double density operation and higher I/O speed. The company now has in breadboard stage an **ST Happy**. This hardware device is a cartridge with software that will allow the duplication of most disk sizes and formats, including those of other computer systems. Given the problems the company had releasing version 7.0 of their 8-bit software (it took 18 months from announcement to delivery), it's surprising to see them announce the ST Happy, which they say should sell for about $200.00 US.

I was just talking to Frank Sommers (of **Current Notes** fame), and he was foaming at the mouth over a new scanning device that has just been released. The device, called **IMG Scan**, apparently consists of a 1 1/2" by 2" cartridge which is cabled, using fibre optics, to a device that is taped to your print head (similar to ThunderScan for the Mac). You can then scan any picture that can be fed into your printer, and the device will produce a Neo or Degas compatible picture. The picture can be sized up or down, and the resolution is limited only by the vertical resolution of your printer. The price for all this will be $99.95 (US) (remember, ThunderScan sells for $250.00). Those that want further information should contact Softlogik (makers of Publishing Partner), who plan to release it soon.

Rumours as to hardware delivery dates for the new ST products abound, with the safe money riding on late (as in very). **Atari** USA has apparently been trying to find a laser manufacturer who will lower their price so that Atari can bundle a Postscript laser with a 1040ST for $5000.00 US. My personal favourite is the rumour that the Megas will be shipping in Canada first, which could be as early as August (*if you believe that one, I've got some swampland for sale*). The most interesting laser development belongs to **Migraph** (Easy-Draw) and **SoftLogik** (Publishing Partner), who have now both released **HewlettPackard Laserjet** drivers for their programs. This is significant because the HP Laserjet, which retails for $1795.00 (US), has been discounted as low as $1495.00 (US). Looks like Atari aren't the only ones capable of delivering "power without the price"!

I was talking to Marty Herzog at **Atari Canada** this week, and he had a bit of interesting news: he says the **MEGA ST** is now in CSA (Canadian Standards) testing, and they hope to be shipping limited quantities in Canada in late summer. The biggest problem Atari has had so far is reliable blitter manufacture, which will mean severely limited quantities for the first few months. Atari and GST have apparently been unable to come to agreement on the distribution of First Word Plus. We'll probably see it picked up by one of the Canadian distributors, although it will be pricey (about $200.00).

Rumours to the contrary aside, the **Atari PC** is a reality, although if they don't get it to market quickly, it won't be much of a bargain: a 640K 8mHz PC Clone with a mono monitor now sells for $895.00 (as of early August),

and that's with two floppy drives and 8 full-sized slots! The Atari machine will be able to run an ST 3 1/2" drive as a second drive (or a hard drive), and will be packaged with GEM and MS-DOS.

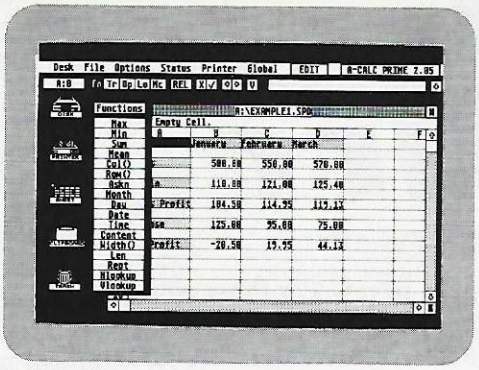
PC DITTO There is a WORKING software PC emulator out for the ST: **Avant-Garde** Systems have just released their PC-Ditto ($89.00 US) which runs virtually all PC software, at about 30% of PC speed (1.4 mHz according to the Norton SI test). There are only two titles that I know of that don't run: Multimate and Basic A.

All of the biggies run: DBase III Plus, 1-2-3, HAL, WordPerfect, Sidekick, Symphony, even Flight Simulator. You can hook up a 5 1/4" drive (which PC Ditto can recognize as drive A to run protected software), or do file conversions with a 3 1/2" IBM drive. With the OS/2 bringing 3 1/2" drives to the IBM world, many companies are offering both formats: I've already ordered and received 3 1/2" versions of Q&A and Travelling Sidekick. Bravo! This product makes the ST the most versatile computer around, and gives ST owners access to more software than any other computer owners (CP/M, IBM with PC Ditto, Macintosh on the Magic Sac, 8-bit emulation on the horizon, and let's not forget the best: ST software).

NEW TOYS

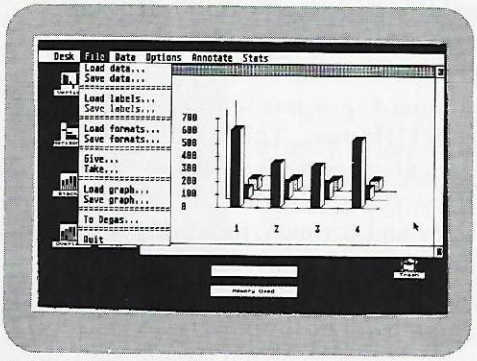
In the past few months, I've picked up quite a few new toys for my ST. Here are my first impressions:

A-Calc Prime - the upgraded version of Antic'c A-Calc (actually Kuma's K-Spread) brings significant improvements and spreadsheet interface that rivals EZ Calc. My only disappointment was that they call predefined cell formulas "macros" (they're not).



A Calc Prime

A-Chart - this is great: what we all expected B/Graph to be: a stats package combined with a great graphing program.



A Chart

Autoduel - haven't had time yet to get into this one, but my initial impression is that it is similar to "Roadwar", with the ability to set up your own vehicle. The package comes complete with an Autoduelist's toolbox (a fully functional miniature toolkit).

Barbarian - Psygnosis (the authors of Brattacus, Arena, and Deep Space), have hit the nail on the head with this one: an animated arcade game that has to be seen to be believed. Early shipments of the program had loading problems (mine crashes 4 times out of 5), but these were apparently limited to the one shipment, and dealers are providing free upgrades to their customers.

DeskCart - this is one I use: a cartridge/software combination that incorporates a battery back-up for your system clock and 15 tools and accessories: Appointment Book, Calendar, Note Book, Card File, Calculator, Typewriter, V52 Terminal, Keyboard Macros, Ramdisk Control, Disk Utilities, Print Spooler, Control Panel (theirs), Screen Dump, and Memory Test. I have yet to find anything that does't run with my DeskCart, and it keeps great time!

EZ Data - when I received this package, I expected the same First Word like interface that Royal Software used in EZ Calc. Instead, I found that it is just a repackaged version of Robtek's DB Calc, which is challenging to learn, to say the least.

Goldrunner - the graphics on this game are better than those in most arcade games! The graphics are so fast you'll swear there's a blitter in your machine.

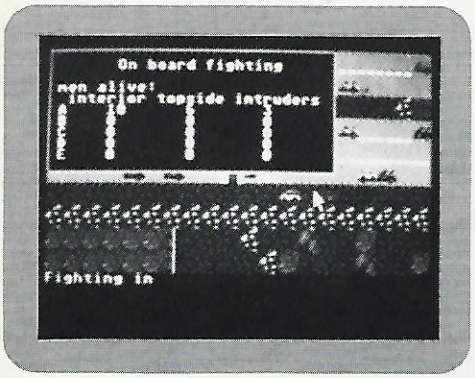
Guild of Thieves - the title page alone makes the sequel to the Pawn worth having.

K-Switch - like Switcher on the Macintosh, this program allows you to split the memory of your (1040)ST into two sides. I particularly like the ability to play an Infocom game while simultaneously drawing a map using PaintPro.

Logistix - finally, a spreadsheet to rival the power of VIP! For $149.00, Logistix gives you a powerful spreadsheet with true macros, a bigger command language than VIP, links between sheets, plus time management and project scheduling. The only real drawback is that it doesn't run in GEM.

NeoChrome 1.0 - the release version of NeoChrome is finally out, although it remains to be seen how it will fair against powerhouse software like Degas Elite and Art Director.

Roadwar 2000 - while a little simpler than Phantasy/Phantasy II, this "Mad Max" inspired game kept



Roadwar 2000

me up a few late nights until I finished the game. A tip for those starting out: save often.

STuff - Gordon Monier of MichTron sent me the program named after this column (not really, but I came up with the name first). The package has 21 different utilities including: Autofold (reorders your auto folder), Autogem (autoboots a GEM program), and STselect (allows you to select at bootup which auto folder programs and accessories are to be run). Well worth the price.

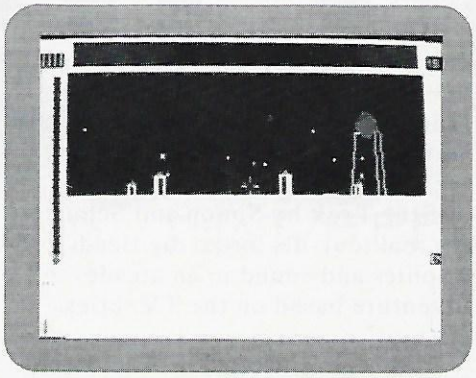
Superbase - this looks really good: a relational database that runs in GEM, and will accept picture files (Degas, Degas compressed, Neo. IMG, in all resolutions) and word processor files (ASCII and First Word).

Why Wait? - this program is intended to speed up operating your ST with a floppy/hard disk cache, floppy accelerator, print spooler, and a ram disk. I have yet to notice a significant speed increase (which is not to say that it doesn't work, I just need to spend more time with it).

NEW RELEASES

Fleet Street Publisher is the desktop publishing package that the British are raving about. While it may be powerful, it is slow enough to require a hard disk. The boys at Softlogik (the makers of Publishing Partner) can rest easy, at least until Mirrorsoft comes up with laser support.

ST Wars is Miles Computing's 10-scenario version of the arcade game Star Wars. The game uses vec-



ST Wars

tor graphics similar to those used in their first ST program, Harrier Strike.

VIP Professional version 1.2 is the first upgrade to VIP by its new owners (ISD Marketing of Markham, Ontario). Some subtle but important changes: greater speed and the ability to define ranges larger than the screen with the mouse. Both GEM and a high-speed text version are available to registered owners for $34.95 Canadian.

COMING SOON

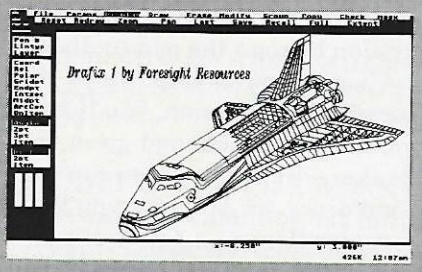
Aliants is Starsoft's second release (Pirates of Barbary Coast was the first). The demo for this game, which is slated for release in August, is very impressive, although hard to categorize. The company calls it a real-time first person strategy-action space game (now there's a mouthful for you!). The demo features original sound, interesting fading effects, and arcade sequences: it is quite obvious that these people have learned a lot since "Pirates". Aliants, by the way, are the alien ant-like creatures that have enslaved the earth in the 24th century. As a rebel Bullet (space ship) pilot, you must help in the battle to save humanity. The program fills two disks with a number of scenarios. On the first, you'll be required to pass a number of tests (arcade-like sequences) and then fly a mission beyond the sun to disable the Aliants' crystal ship. Once you succeed at this mission, you'll be promoted to Admiral and given the code that will allow you to run the second disk. As Admiral, you'll command your fleet on a battle chess board. After the final battle (if you succeed), you'll land in New York City's Times Square for the digitized finale.

Arkanoid is an arcade game by Imagine Software, based on the classic "Breakout". After seeing this, you'll no longer have any doubts about the ST's ability to run arcade games.

Art Director is Mirrorsoft's high-powered paint program, with more features than you can shake a stick at (smear, scrape, perspective, etc., etc.). Broderbund will be releasing Art Director and Film Director bundled together for $79.00 (US).

Calligrapher is a impressive new GEM based word processor from Computer Concepts (Fast Basic) that features multi-column text, multiple fonts and type styles, a 60,000 word dictionary, embedded resizable graphics, including high resolution graphics up to 300 dpi, with the ability to import files from Degas and Easy-Draw, outlining, hyphenation, macros, box drawing, and on and on. At a suggested list of 69 pounds (about $140 Canadian), this program should give Word Perfect a run for the money.

Drafix 1 by Foresight Resources is a conversion of their PC CAD program. This high-powered CAD program should sell for about $299.00 when it is released this summer. An interesting note: I saw Drafix 1 Plus running on an IBM PC-AT a recent trade show. The AT was equipped with an 80287 math co-



Drafix 1

processor and an EGA monitor, each worth the price of an ST system. Amazingly enough, even with all that power, the AT runs the same software noticeably slower than on the ST!

Gauntlet: Adventure Soft have done spectacular conversion of the Atari arcade hit. Your kids will give you no peace until you buy this one (and then you'll not be able to get on your system for a few months).

Signum is an impressive document processor that has just been released in Germany. It does a dot-matrix printout that rivals laser output.

SSI have three new games scheduled for summer release:

Those that know me know that I'd walk to California to get **Phantasie III: The Wrath of Nikademus**. Keep your characters alive for transfer to the upgraded finale to the Phantasie series.

Rings of Ziflin uses animated window graphics in a game where the object is for players to find the missing rings that will release the land of Batiniq from the evil Lord Dragos. Players enter into buildings in the game using a new kind of windowing animation which provides screen insets, zooms into room interiors, plus scrolling landscapes keyed to a strategic map and flashing character locator.

Wizard's Crown is a fantasy adventure game with tactical combat through dungeons and castles to retrieve a magical crown. The game allows you to create characters that move singly or collectively and offers a multitude of combat options, with up to five levels and over 80 hours of play for intermediate role- playing gamers.

The latest word from **SSI** is that they will be releasing three different role-playing games based on Advanced Dungeons and Dragons, which they have licenced from TRS.

Star Trek by Simon and Schuster is a real tour-de-force: digitized graphics and sound in an arcade-adventure based on the TV series.

Xevious is Probe Software's conversion of Namco's arcade classic. It looks very good, but it's obvious that the programmers never played the game (the underground targets and the flags are missing).

There's some pretty impressive games software being developed in Europe. As well as **Arkanoid** (which Atari will release), **Airball** (the great Microdeal game just released by MichTron), **Barbarian**, and **Gauntlet**; look for **Elite, Mission Elevator, Prohibition, Quartet, Road Runner,** and **Slap Fight**, to name a few. On this side of the Atlantic, applications are being ported from the Mac (Manhattan Graphics will release **Ready Set Go** this fall) and the IBMPC (**VP Planner** is being written for the ST).

STILL VAPOURWARE

Atari PC Emulator: I don't want a clone (I just sold my PC10-II and replaced it with another 1040) and would rather have Atari make a device that allows us to run PC software (at 4.77 mHz or better) on our ST's.

Dungeonmaster is the long-awaited second game from FTL (the makers of Sundog). I called the company two weeks ago, and they are pretty sure the game will be released this year.

Microsoft Write: if this isn't out soon, we might all decide to wait for Word Perfect.

THE END

That's it for this time, but I thought I'd close with a few thoughts on hardware and software. It's about time that Atari realized that their edge in hardware is starting to erode: the new PC's, the new Mac II, and even the new Amiga, all evidence the next step in technology (although at record price levels). Let's hope that this encourages Jack to push Atari to new performance levels, perhaps with the EST. Certainly the pace that Atari brings its new products to market will have to be quickened if they wish to remain competitive.

Atari computer owners, on the basis of 8-bit performance, have (rightly or wrongly) been branded as software pirates. It seems to me that Commodore, IBM, and Apple owners have gone to greater lengths, with pirate users' groups, copiers, and "software evaluation clubs", but that doesn't help us. The base of users is smaller for the ST than it is for the IBM or the Macintosh, and yet we expect the manufacturers to provide us with better software at a lower price. With rentals available, and given the state of the art in disk copiers, it's easy to amass a library of software. If no one buys software, who's going to write it? My philosophy is simple:

IF YOU USE IT, BUY IT!

Stay Tuned until next time.■

Glenn Brown is a founding member of NCAUG/ST, as well as its past president. He is also past president of Ring 151 of IBM (International Brotherhood of Magicians).

BYTE

THE HAND THAT FEEDS YOU

by Terry Webb

I started out in life not really understanding what was going on around me and I always hoped that as I grew up that my destiny would become clear to me. I could never cut it as a surgeon or make the grade as a teacher but in my heart I knew that I would eventually find something that I was good at. After several years of not attending school, I got the job of my dreams as a used car salesman. It was a very strange business. We worked from a little trailer on a vacant lot and seemed to move about every second week. There were never any cars around, but when a customer showed up and asked for a "blue two-year old Oldsmobile" my brother was always able to get him one by the next day. They called me a salesman, but I never had to sell anything. People walked in the door and just said what they wanted. It was so easy. People took one look at me and right away had to buy something. I must be the greatest salesman in the world. I should be in another field that will pay me what I am worth: computers, the money-making field of the future.

I was a natural for computer sales. It was in my blood and family tree. After all my father was an Adder (my mother just called him a snake, but I'm sure she meant that particular species), and my sister was a well known multiplier all through high school (she was especially well know for her exploits with the senior football team). Best of all, I wouldn't have to wear that beanie with the propeller on top any more. I quickly found out that selling computers isn't anything like selling cars. First, people want to know something about them. A car is easy; the carburetor carbs, the generator gens, and the pistons go up and down. But you can't ram a computer against anything, an operating system isn't a way to meet girls and using a cursor isn't going to get your mouth washed out with soap.

In car sales, when asked how many 'K' the car has, if I answered "640,000", the customer would pass out. In computers, 640,000 just gets complaints about "stupid MS-DOS." Customers line up to buy a copy of an IBM made in a basement in Mississauga, but if I try to sell a copy of a Corvette (made only from original parts) assembled in the woods north of Buckingham, Quebec, I'm in jail. An automobile has to be guaranteed and someone has to honour it, but a computer is completely different. Most of the fine print says that no matter what the big print says, nobody guarantees anything. I like the part that reads that the seller "makes no representation or warranties with respect to the contents herein and specifically disclaims any implied warranties or merchantability or fitness for any particular purpose." That means that even though I promise you it will work, if it doesn't, it's your tough luck. Computers are so much more civilized than cars.

The world of computers is made up of two separate parts, hardware and software. They are each completely separate, are made and sold by different companies, and the only reason that they don't work is the fault of the other. With a car, if your new tire is flat the next morning, it's the fault of Goodyear and nobody argues, but in the world of computers, somehow that flat tire is the fault of the company that made the windshield washer fluid. If the hardware doesn't work, it's the fault of the software and if the software doesn't work, it's the fault of the hardware and if both don't work, it's a glitch in the line. I love it.

My first job was at the "Klone Kingdom" or maybe it was the "Clone Cingdom" where we sold copies of any computer made. The store didn't stay open long because we sold copies of any software made as well. That's the big difference between hardware and software. My next job was not exactly sales but more marketing. I spent two days melting down Amigas in a big vat so

that a shopping centre could have a Commodore Liquidation. After that dried up, I went into business for myself in an old truck that I converted to a mobile component store. I called it the "256K Chip Wagon". Very few people buy a greasy container of 256K chips while they are walking along the street. Another idea before its time.

Next I tried selling used computers. This was very hard because the reason that they were for sale was that someone had used them and found out that they were no good. Luckily, I could guarantee them exactly the same as a new machine, but the only ones who were interested in them were strange animals called "hackers" or "tekkies". The difference between these two is that the tekkies have four different colour ball point pens in the plastic folder in their shirt pocket while the hacker has only three. Hackers buy strange computers because they hope that General Foods hasn't put a security block in their main computers to stop access by this obscure operating system and they can get into the corporate mainframe and change the sugar content in Capt'n Crunch cereal. Tekkies buy the computers so that they can take them apart. That's the nice thing about being a tekkie. Nothing ever has to be reassembled and work. In my next life, I want to come back as a tekkie's computer.

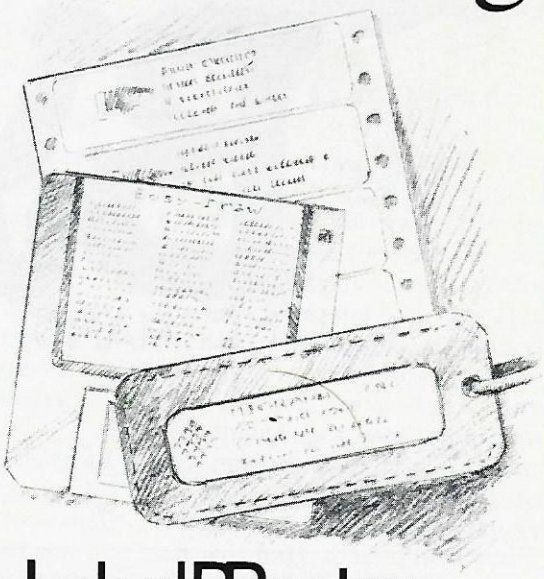
I found employment with a company that sold door-to-door. This was a great product. Real computers need a cooling fan, right? Well this fan was one big sucker. For only $89.97 a month, I could offer you a computer to keep track of all your household chores that also doubled as a vacuum cleaner for your carpets with an all-purpose attachment for upholstery, drapes and toilet bowls, and a beautiful 11 record set of the greatest hits of the Ice Age. High technology moves so fast that the average housewife can't keep up.

Perhaps I shouldn't be in sales. Maybe I have a natural talent for service. After all, I have a nice smile. I was given my own workbench in the service shop and boxes of ugly little petrified black bugs with dozens of silver legs. God they were horrible. A sick computer came in and when I opened it up, I realized that these things were computer fleas. The damn thing was full of them. Fortunately, one of the things that us computer service types do is solder. That means I've got a propane torch. I fried those little devils right where they lay.

That about exhausted my job prospects in the computer sales and service field. It's too bad that these guys don't believe in on the job training. I'm out of work, no useful experience, no job offers and at the end of my rope. I've no choice, I'll have to become a consultant. ■

Terry Webb is the author of a column carried in a number of user group newsletters in which he describes the rather confused life of a computer owner and his struggles with a machine he doesn't really understand. In this article, he has magically become a computer expert but, as we see, he still doesn't grasp reality.

Introducing



LabelMaster™ Elite

Here's Migraph LabelMaster Elite™, a fun easy-to-use GEM based label maker and mailing list manager. With LabelMaster Elite, you can create distinctive custom labels that can be used for business mailings, gift tags, disk labels, and much more!

Labels may be printed with designs included with the program or created with the feature-packed Graphics Editor. Print labels with or without designs in a variety of formats including mailing labels, 3.5″ disk labels, and 3x5 and 4x6 index cards.

The mailing list manager has all the expected functions plus the ability to flag a record for personal or business use as well as a 48 character comment field.

Once you use LabelMaster Elite you'll never use plain labels again!

Graphics Editor
*100 designs on disk *Line box, circle & mirror drawing commands *Clipboard to cut & paste between designs *Compatible with Printmaster designs

Mail List Manager
*Search, sort, delete & modify records *48 character comment field *Ability to merge databases *Store thousands of names *Freestyle label with 4 lines of text in varying styles

Additional Features
*Works with most 9 & 24 pin printers *Print up to 11 lines of text on disk labels and index cards *Mix print pitch and style on the same line by using special printer codes *Print disk directories

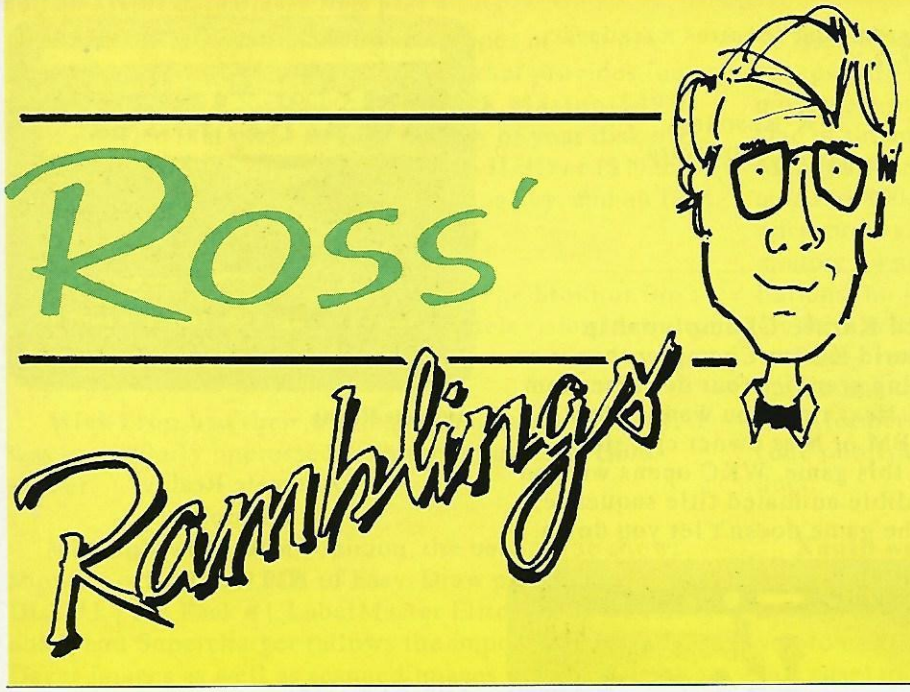
Current LabelMaster owners may update to Elite by returning their disk and $5 to Migraph.

MIGRAPH

LabelMaster Elite is a trademark of Migraph, Inc. Printmaster is a trademark of Unison World

Migraph, Inc.
720 S. 333 St., (201)
Federal Way, WA 98003

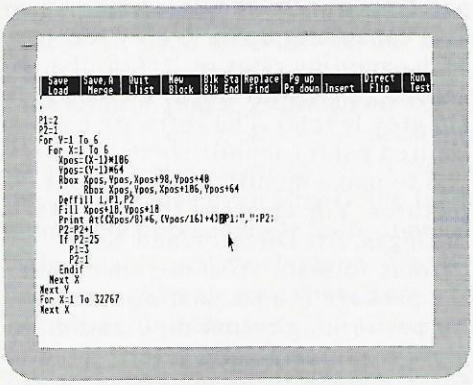
To order call:
206 838-4677



by Ross Judson

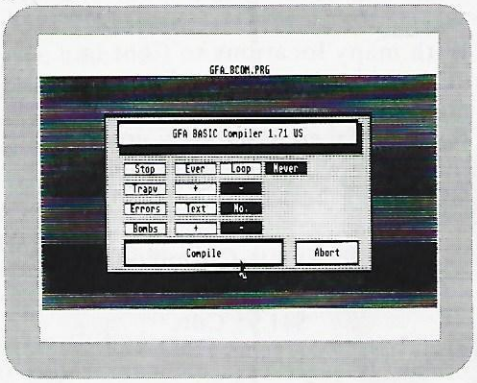
GFA BASIC

Two of the most exciting products I've seen lately are the GFA



GFA BASIC interpreter

BASIC interpreter and the GFA BASIC compiler, both being distributed by Michtron. The interpreter is lightning fast and provides tremendous support for the operating system in the ST. It is easy and intuitive to use. Demos of the capabilities of this language are available from many sources and Compuserve has a number of demos that you can run with a program called GFABAS-RO.PRG. This program is the run-time module for the interpreter (the compiled programs need no such module). The run-time module is public domain so any program you write with the interpreter can be given to other people, even if they don't have the language. With the combination of a language fine-tuned for the ST, a public domain run-time package, and an incredibly fast



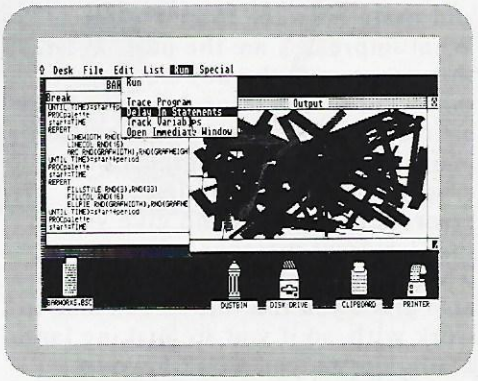
GFA BASIC compiler

compiler, this new language is sure to be a winner for flexibility, speed and ease of development.

GFA Basic
Michtron
Pontiac, MI
$99.00 Cdn.

Fast BASIC

Fast BASIC is another new language that will inevitably end up in head to head competition with GFA BASIC. The syntax of Fast BASIC breaks away from traditional BASIC more than GFA, but this has its advantages. Fast BASIC has an excellent environment resembling the desktop with the icons for programs and various functions. You can have up to 10 programs in memory at once, and switch between them with ease.



Fast BASIC

One program can chain to another that is in a different segment. The editor, perfectly integrated into the environment, is superb, with dif-

ferent font sizes for various tastes and a host of standard editing functions. The run-time package for this language is available, but there is no word about a compiler as yet. It should be very interesting to see which of these super-BASICs survives, or if they both can survive and prosper.

Fast Basic
Computer Concepts
Hertsfordshire, UK
$99.00 Cdn.

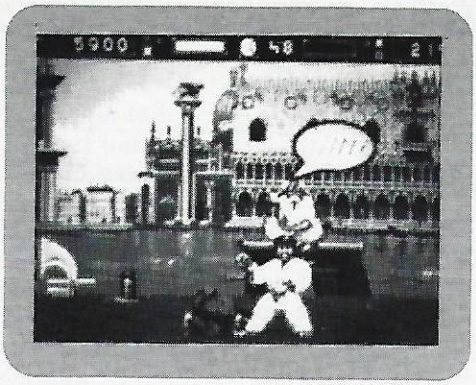
K-Resource

GEM programmers take note: Do not even look at your old resource construction program any more. There is a resource construction set called K-Resource, from Kuma software. This program is absolutely superb. The best thing about it (other than the news that IT DOESN'T CRASH) is the amazing user interface. K-Resource confronts you with a desktop resembling GEM's. If you want to load a resource file, you double click on a drive icon, find the icon for your resource file, and drag it onto the desktop. That loads it. If you want to modify the resource file, double click on its icon and a window pops open enabling you to make changes and additions. You can have multiple resource files in memory, and cut and paste between them with ease. What impresses me the most about this program is the obvious work that went into making it fast and efficient to use. For example, if you make an error, the program doesn't crash: it will actually circle your error on the screen, and give you an English error message telling you what you did wrong. K-Resource also gives you the full screen size to work with, so if you are making large dialog boxes, you won't have to scroll all the time. The parts box pops up when you need it, and goes away when you do not. Full icon and image editing capabilities are included. K-Resource generates source for C, Pascal, Modula 2, Fortran, and more. My advice: if you are creating a program that requires a resource, buy this.

K-Resource
Kuma Software

World Karate Championship

World Karate Championship is an amazing graphics tour de force from Epyx. Next time you want to make and IBM or Mac owner cry, show them this game. WKC opens with an incredible animated title sequence, and the game doesn't let you down.



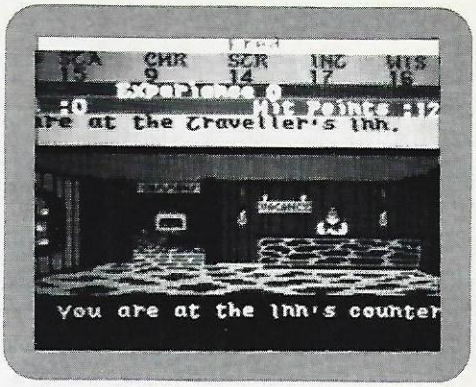
World Karate Championship

With many locations to fight in, detailed combat animation movements and hilarious looks on the fighters' faces when they go down, this game will keep you trying for your black belt for a long time.

World Karate Championship
Epyx
$41.95 Cdn.
$29.95 US

Alternate Reality

Alternate Reality from Datasoft is a port of the game of the same name from the Atari XE computer. Aliens kidnap you and thrust you into a strange city. Your task is to discover the way out, and get home. Three dimensional scrolling solid graphics, an original musical score, and a fascinating concept make this game an interesting venture.



Alternate Reality

Alternate Reality
Datasoft
$54.95 Cdn.
$39.95 US

The Realtizer

And last, but certainly not least, there is a video digitizer on the market called the Realtizer. From Michtron, this remarkable little unit plugs into the cartridge port on your ST, and comes with complete software. It is capable of up to 16 grey levels, with sampling rates of 1/50th of a second (2 grey levels) to 2 seconds (16 grey levels). The software has limited paint capabilities to allow you to make modifications to your pictures. You can save the pictures in Degas, Art Director, and Neochrome formats. Also included with the package is a fascinating scheme for performing colour digitization. It involves three plastic filters: a red filter, a green filter and a blue filter. You place the object you want to digitize in front of a video camera, and put the red filter in front of the camera lens. This allows the software to digitize the red content of the image.

Well, that is it for now, watch for full details of the Realtizer, and much much more, in Reset's next issue.■

Ross Judson is studying computer science at Carleton University, specializing in management and business. He is very interested in stereo equipment, and, of course, computers.

Buffalo Atarifest, continued from page 4

hardware. They were showing prototypes of 4 St products: **NECES-ST** ($34.95 US), a box that provides four switchable mouse/joystick ports; **Track Master** ($49.95 US), a device that gives an LED display of your disk drive activity (track, side, protection); **Caps-Italizer** ($19.95 US), a capslock light built into your caps key, and an IBM compatible **5 1/4" drive** ($209.95 US)

JNL Technologies were demoing The Monitor Box, which gives composite video and RF (television) outputs to all ST's for $79.95 (US).

MichTron had their whole product line on display. I was particularly impressed with the graphics in Goldrunner.

Migraph were, in my opinion, the best of the show: showing off version 2.04 of Easy-Draw plus Personal Art Disk #1, Font Pack #1, LabelMaster Elite (all now available), and Supercharger (allows the import of Neo and Degas images as well as scanned images into Easy-Draw). The star of the show, in my mind, was the mind- blowing M/CADD package (actually two packages: a 2D drafting program and a 3D wire frame modeler, each to sell separately for $299.95 US or both together for $499.95 US). The author was demoing the package(s), and could he make it(them) fly! The interface is the most complete I've ever seen: GEM drop-downs, on- screen icons (a la MacPaint), plus stroke recognition (the ability to recognize, for example, that a 'Z' drawn on-screen means to zoom in on that area) and keyboard equivalents. All of these are completely user reconfigureable, to a degree heretofor unseen: you can even change the language of the commands! Features include auto-dimensioning, extruding, 32767 layers, and much more. To say that I was blown away would be an understatement. This program will sell machines. Liz Mitchell (VP Communications at Migraph) tells me that they plan to port it to the IBM PC-AT after the ST version is finished.

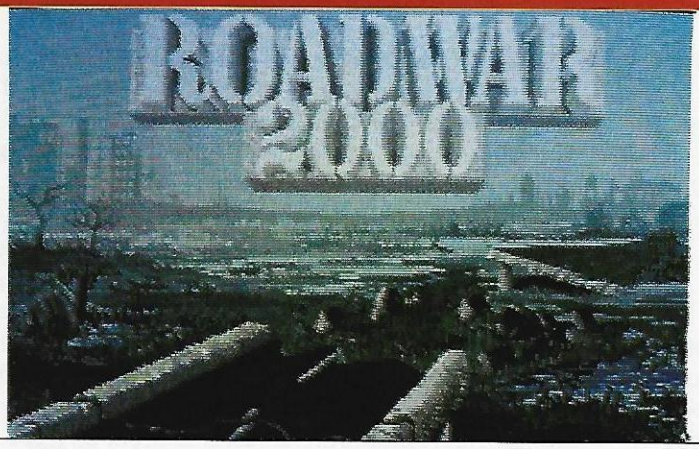
PCA were showing the **Graphic Artist** with Fontpack-1, and two new symbol libraries: the Electronics Library and the Desktop Publishing Library. They were handing out very impressive flyers printed on an Epson compatible 9-pin printer.

QMI :here's another booth that cost me money: I bought **DeskCart**!, which is a cartridge with 14 accessories and a battery backup for the system clock ($99.00 US). Very well done, and the cart was set to the correct time when I got home!

Royal Software were showing **EZ Calc** (with its new graph accessory) and EZ Data (sold in Europe by Robtek Software as DB Calc).

User Groups: there were about 1/2 dozen Atari user groups with some pretty impressive displays, although most were primarily oriented towards the 8-bit machines. One of the most interesting products was **Darek Mihocka's ST Xformer**, which allows the ST to emulate an Atari 800. Even better, because it emulates the 6502 microprocessor, it is also capable of emulating the Commodore 64 and the Apple][. There are numerous limitations: no joystick or paddle support, no player-missile graphics, very slow speed (about 30% of an 800), and it will only run binary and basic files. Atari and Mihocka have come to terms about the (public domain) release of the Xformer, including an arrangement to have the source code published in order to encourage work on the product.

Xanth were there, with their infamous Midi-Maze (to be sold by Hybrid Arts for $39.95 US). For those who have been in Siberia for the past year, this game allows you to use the midi ports to link up multiple ST's (6 in this case) to play a first-person maze game, where the object is to survive a shoot-out with your opponents, who are represented on-screen by different-coloured happy faces. The best I could do at "Kill a Happy Face" (I still prefer the original name) was a second place finish to a seasoned professional (she was at least 8 years old). ■



by Ted McNicol

Strategy games were always somewhat of a mystery to me. The 8-bit machines, with their larger memory (up to 80k, WOW !!!), could handle increasingly difficult situations. Where more memory was required, programmers built in disk accesses, sometimes even enhancing the suspense of the next scene.

When the ST came out, it was obviously the ideal machine for this type of product. Massive memory, great graphics (often neglected in the past), and superb processing speed offer the game designers an opportunity to excel. So, where are all the games?

They're coming. They're coming. Roadwar 2000 is one of the first (but not the first by the designer, Jeffrey Johnson), and shouldn't be overlooked in the wave of new "war games" now appearing. If you're looking for a review of the product, suffice it to say buy it. After completing the game (which only took me a little over 30 hours, all crammed into a weekend I seem to have misplaced), it was only three days before I started another round.

The game itself is set in one possible future, in which some sleazoids decide to unleash a plague on North America (yes, even on the Mexicans). The plague is followed up by your basic "limited nuclear holocaust," and various groups assume control over the remaining cities (120 of them). Your task, with your single vehicle, your 7 people, and minimal supplies, is to seek out a bunch of scientists who have been studying the plague. If you're observant, you can gather clues to their location and take them to the Government Underground Biolab (the G.U.B. - even the plague and a few nukes can't control the acronyms).

Seems easy? The people in the cities range from being so friendly that your men desert to so foul that they treat you like a casserole (the lovely and charming cannibals). No, the cannibals aren't the bureaucrats we see today. Bureaucrats remain the same, extracting a small offering (ten % of all your worldly goods) for the privilege of continued breathing in their towns. There are also invader towns, in which Chuck Norris could be in for trouble.

You could stay away from the urban areas, but it wouldn't do you a lot of good. Road gangs populate (and help depopulate) the highways,

Typical Road Map

and do come into town to help you on your way heavenward. That's about it for the nasty folk you may encounter, except for the mutants, who attack in droves and leave your survivors diseased. As well, it might be fair to mention that there are interesting side trips. Some offer improved morale (i.e. Las Vegas), while one amusement park reduced by manpower due to poor maintenance.

All you've got to do is fight your way through all the nasties, find the scientists (and the G.U.B.) and live happily ever after. Fat chance. I lost so many crews I ran out of decent names for them. Then I discovered it was somewhat more prudent (especially if I wanted to ever finish) to save the game, and save it often. As you gain in strength, it is a lot easier to survive an encounter with a suicidal Invader Death Squad.

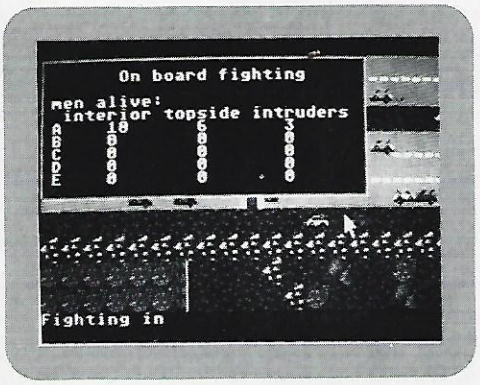
Now, for those who want to succeed at this game, here are a few general hints. First, I repeat, save the game often. Every time something good happened to me, I saved my current position. Second, take copious notes, regarding who controls the city, where you find healers, what you cache in a city for later, and what type of supplies you obtain in your looting. There is looting and genocide allowed but the game is a little weak in the area of raping and pillaging. I suggest that it is worthwhile to read the "docs," although it may not do any good. Finally, write down and act on any clues you receive, especially at the G.U.B., which you should visit often.

Now, on with the game. Each time you start the qualities associated with a town are adjusted, the G.U.B. and the scientists are moved and basically you are at square one. The first move to make is to search for vehicles, either by pulling down the Search window or hitting the 'V' key. Almost all the window commands are duplicated with the keys, and I especially recommend using the numeric keypad for movement on the map.

Once you have more vehicles you can carry more people and more supplies. Also, check out the vehicle specs, as some can carry a lot more than others. Trade up, and travel around as certain cities improve your vehicle qualities.

You have a choice of dealing with the people you meet. The way to gain recruits is to send an envoy. Do

not send too many men or men of too high a rank, as the people often kill them and then come after you. If you have the maximum number of people,



Typical Combat Scene

consider firing a volley. This seems to be a very effective way to avoid confrontations.

On occasion, you will be propositioned as you wend your way across the country. I have already mentioned the clues you can receive. You can also pick up a crony or two. Doctors, politicians and drill sergeants can all help your gangs ability to survive, deal with bureaucrats or to fight. There are different levels of crony quality, which can only be judged by experience. If you seem to have a good one, don't accept another.

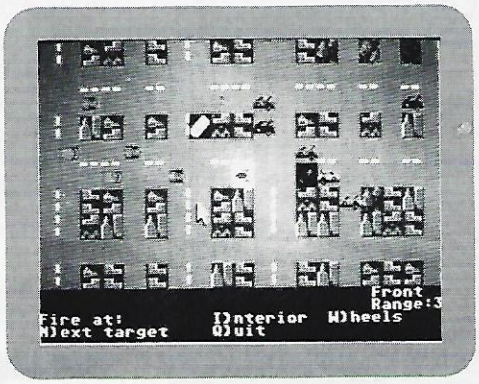
Whenever your food or fuel levels fall too low, loot like mad. A starving gang is no fun, and becomes a former gang rather quickly. Gather some medicine for trading with healers, as their antitoxin is the only cure for diseases caused by consorting with mutants.

The only danger with looting is that it offers the quickest way to attract the attention of the town rulers. When entering a town, consider sending some lowly escorts on a scouting mission. Until you have some strength, avoid hanging around towns run by the invaders, survivalists, local gangsters, renegade national guardsman, the mob, or anybody else. (Just kidding.)

The good part is that when you defeat the town rulers, which may take several sallies, the town becomes yours. This offers a relatively secure place to loot and gather vehicles and crew.

There are not quite as many types of road gangs as town rulers, and some can be dispatched easily. Initially, I opted for Abstract battles, which are "very fast and bloody". When I found out that I could actually gain from taking a direct hand in the battles, I changed to the Tactical method, without the Quick option. You are given the opportunity to manually deploy your men on the vehicles, which also allows the choice of weapon types.

The game gives you a tactical map, showing either a few highway lanes or a city grid. Your first job is to position your vehicles to meet the enemy, using the keypad. Once you



City Grid

are happy with how they are deployed, there are two sets of commands which appear at the bottom of the screen. You use Movement commands to move each vehicle one square at a time, until you are in range. You can speed up, brake or turn, depending on the attributes of your vehicles. You can ram hostile vehicles and destroy them, which can damage or destroy your vehicle (avoid head-on collisions).

The next screen gives Fire commands, with each vehicle firing one or two volleys at any of the enemy vehicles in range. The volleys may be directed at the tires, interior or top of the vehicle, with the effect of the volley shown in a drop down window. You can also transfer men to vehicles which are next to you, this enables you to board and capture enemy vehicles.

After each road combat, you may gain supplies in addition to the vehicles you capture. You will also lose supplies if your vehicles are wrecked in the melee. The combats also get a lot more vicious towards the end of the game, with large gangs encountered. I spent over a half hour on one skirmish with a twelve vehicle gang with at least one trailer truck (101 men).

There is one other perk in fighting these road gangs in the tactical mode rather than quick combat. After each combat, your vehicle limit is increased, up to fifteen. You can carry a lot of men and supplies in fifteen large vehicles.

Player's "Gang"

That's about it for the game. By the way, you'll have to get the Radio Direction Finder to locate the last two scientists. It should be fairly obvious where that is.

The final congratulations is kind of cute. What a dubious honour. Notice that it does hint that there will be a sequel. I'm waiting, Jeffrey, with my engine revving.■

Roadwar 2000
SSI
$54.95 Cdn.
39.95 US

Ted McNicol has been involved with computers since 1971, when he played games at Simon Fraser University. The relationship continued, as the computer became necessary in his work in compensation and benefits. Ted is presently completing a diploma in data processing at Algonquin College, and has progressed from a 2k Intellivision computer, an 80k Coleco Adam, to the 1040 ST he presently owns. Ted is current President of the 250-strong ST group in the National Capital Atari Users' Group.

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By Bob Thompson

Occasionally a class of computer products comes along that can be considered truly revolutionary. Desktop publishing, very hot these days, happens to be just such an item. Essentially a page processing software, traditional typesetting, page layout and paste up techniques are replaced with on-screen manipulation that is flexible, efficient, and creates a high quality product. Transfer of these specialties to the personal computer may have a momentous impact on the whole printing industry itself, like the consequences of wordprocessing to typing. Similarly, spreadsheeting and data base management have transformed business procedures.

The Macintosh took this new technology by storm, and is the clear leader. The Mac was designed for the vast amounts of graphics manipulation required for the budding desktop publishing field. Software for the IBM PC and work alikes is now being introduced to that vast market. The IBM was not designed for this sort of work, and as a result it is not a natural for desktop publishing. However, with so many machines out there, there is a ready market for any product that runs on a PC. In the meantime, we ST owners just sat in the wings, dreaming about the potential of the ST in this blossoming field.

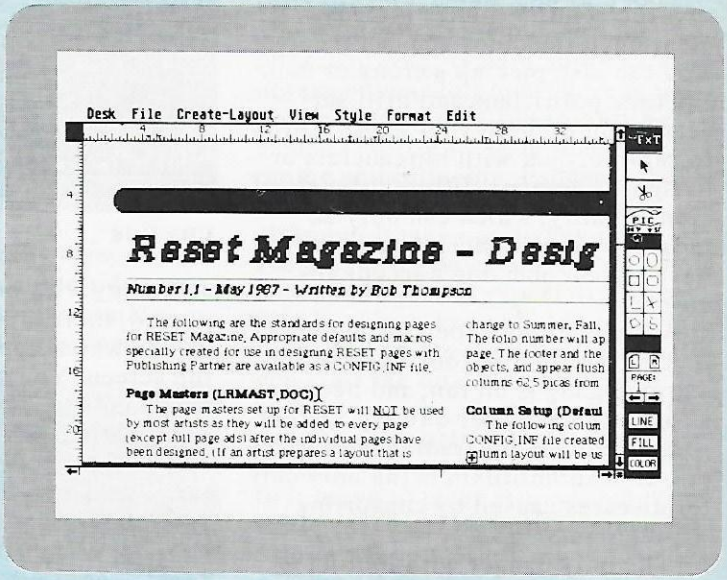
Publishing Partner by SoftLogik Corp. is the first true full featured desktop publishing program for the ST. Yes I know other ST programs claim to have desktop publishing capabilities, but face it, putting a large engine into a pick up truck doesn't make it a racing car! Don't get me wrong, many products for the ST claiming desktop publishing capabilities are excellent programs with many superior features; but their desktop publishing features are not even in the same league as Publishing Partner. Publishing Partner is not an overgrown paint or CAD program; it was designed from the ground up for desktop publishing.

Since there are so many articles on Publishing Partner that go into great detail about the various features of the program, I will tell you more about specifics of using the software, based on my own experience. I'll begin with an overview of page creation, run through text and graphics, and explain how to print your work.

Page Creation

The major difference between desktop publishing programs and other types of drawing, paint and enhanced word processing programs is in the ability to create whole pages by combining text and graphics. Publishing Partner excels in the page creation area.

Exact positioning of elements is remarkably easy through the use of on screen rulers (in inches, centimetres, or picas) with indicators to show the exact position of the cursor on the page. Snap to grids help in the aligning of objects, and an editing command (alternate E) allows the precise placement and sizing of columns, lines, circles, boxes, graphics, and text objects. The multitude of screen views available in Publishing Partner is far greater than for other desktop publishing programs that I have heard about. Double page spreads, full page view, 50%, actual size, 200%, and user definable (up to 999%) scale views are all easily accessible. There is even a method to alternate between two views by toggling the box in the lower right hand corner of the screen.


Desk File Create-Layout View Style Format Edit
Reset Magazine - Desig
Number 1.1 - May 1987 - Written by Bob Thompson
The following are the standards for designing pages for RESET Magazine. Appropriate defaults and macros specially created for use in designing RESET pages with Publishing Partner are available as a CONFIG.INF file.
Page Masters (LRMAST.DOC)
The page masters set up for RESET will NOT be used by most artists as they will be added to every page (except full page ads) after the individual pages have been designed. (If an artist prepares a layout that is
change to Summer, Fall, The folio number will ap page. The footer and the objects, and appear flush columns @2.5 picas from
Column Setup (Defaul
The following colum CONFIG.INF file created lumn layout will be us
TEXT
PAGE
LINE
FILL
COLOR

Publishing Partner Screen

The user interface of Publishing Partner is one of the program's strong points. Numerous menu options are available through the use of the mouse; but the use of keyboard commands opens up a whole new range of options. Virtually all menu selections are available from keyboard equivalents, and options not on the menus are available from the keyboard. I have never seen a program that makes such good use of the keyboard. There are many keyboard commands, such as moving the scroll bars, that should be standard for all GEM environment programs. Aside from the convenience of using the keyboard, the use of macros is included. Several keyboard

commands can be combined into a macro and assigned to any of the function keys. (See the section on the use of macros in the Publishing Partner tips article.) For some reason SoftLogik did not include a keyboard command reference sheet in their documentation; but I have made up for this oversight by including a quick reference guide along with this article.

Page creation is also made much easier through the use of master page(s). Master pages avoid repetitious work such as placing headers, footers, page numbers, and common graphic elements on every page of a document. Any items that appear on a master page are automatically repeated on every page of the document. Publishing Partner allows for left and right master pages for the creation of double sided documents. Never put text or text columns on a master page unless you want the same text to appear on every page.

Page size can also be defined within Publishing Partner. The default is an 8 1/2" X 11" vertical page; but many different page sizes (including custom sizes) can be created in both vertical and horizontal formats. The program also allows the use of up to thirty-two colours to specify colour breaks to be printed out separately. The actual colours will show up on a colour ST system.

Publishing Partner -
The Good

Publishing Partner has many outstanding features that make it a superior product.

General - The ease of use, multiple features, flexibility and control make Publishing Partner an extremely powerful as well as easy to learn program.

Program format - The entire program is written in Assembly Language and resides entirely in RAM. This ensures that the program runs quickly, and requires no disk access until the printing stage. Those people who have gone through endless disk swaps on the same type of programs on other computers will appreciate this feature. This program runs perfectly on a single sided disk drive. Most desktop publishing programs on other computers require a hard drive. The program runs perfectly on a 520, although a 1 Meg machine is desirable if you include a lot of graphics. The program is unprotected.

View Options - The choice and ease of selection of various magnifications with this program is amazing. Most publishing programs offer a choice of several fixed views, but this is normally insufficient when using smaller type sizes and complex page layouts. Many programs 'Greek' in lines at smaller screen views, but Publishing Partner shows accurate line relationships and lengths in all magnifications. Publishing Partner is clearly superior to any other publishing program on any computer in its view options.

Accurate Positioning - The combined use of the rulers, the ruler indicators, the 'Alternate E' command, and the snap to grids ensure accurate and precise positioning of text and graphics.

Keyboard Equivalents - The many keyboard equivalents of mouse movement and menu choices allows for speedy creation of pages.

Macros - The ability to combine several keyboard commands into a macro and to save the macros along with other default preferences allows the user to set up a library of customized design guides for specific uses.

Page Sizing - The ability to specify custom page sizes in horizontal or vertical formats is a strong feature.

Customer Support - SoftLogik provides excellent user support on this product. I have spoken to representatives several times, and they seem most willing to help. The company has provided upgrades as they became available, and has taken the unprecedented step of uploading revised fonts and new printer drivers to bulletin boards to ensure their distribution. Most companies charge heavily for these extras.

Product Upgrades - Already there have been several upgrades released for Publishing Partner. The original release (version 1.0) suffered from quite a few bugs, mainly in error trapping. Version 1.01 removed most of the bugs, and included a public domain importer accessory. SoftLogik released improved printer drivers, improved screen fonts, and font editors, free of charge, via the major bulletin boards. Version 1.02 is the current version, with all improvements to date incorporated.

Three new fonts were also made available on the bulletin boards. Recently I have purchased three additional font disks, and two clip art disks direct from SoftLogik.

Future improvements and additional support material are planned for distribution by SoftLogik.

Page creation with Publishing Partner is a real joy. Any errors can be corrected, and any or all elements can be repositioned or resized at any time.

A major feature of Publishing Partner is its ability to change the default settings and replace them with your own preferences. You can configure the program so that on booting it loads in your desired printer driver, macros, font, style and type size, leading, preferred and custom views, page size, column set up, measuring system, and a myriad of other custom features.

Text Manipulation

Entire documents can be created using the built in features of Publishing Partner. More commonly, text is "imported" into Publishing Partner in the form of ASCII files. Basically these are files created with a word processor, but saved with the word processor mode off in order to strip out all formatting commands. ASCII files are exchangeable between different types of computers by means of a modem.

Before importing into Publishing Partner, all ASCII files should be run through the importer accessory provided with Publishing Partner. This accessory strips off all carriage returns found at the end of every screen line in the ASCII file. Otherwise, if you import an ASCII file directly into Publishing Partner you'll have to manually delete each carriage return so that your text will flow properly in the spaces you provide. The importer accessory automatically saves the converted file to the disk in a file called 'IMPORT.TXT'. Unfortunately, the importer

Publishing Partner - The Bad

As with every program of this magnitude, Publishing Partner is not without its weaknesses and omissions. Many of the features mentioned here are only available on publishing programs costing many hundreds of dollars more than Publishing Partner, and others are not available on any publishing program at any price. No single program has all (or even most) of the mentioned features. This section represents more of a wish list than serious complaints. As a friend of mine said, this is a bit like complaining about Santa Claus.

MAJOR FEATURES LACKING

(Some really serious stuff here)

Automatic Hyphenation - Although the manual soft hyphenation features provided are easy to use, it is very time consuming; automatic hyphenation (based on a dictionary) is really required.

Automatic Kerning - Automatic kerning (specific kerned pairs), and automatic character spacing, especially in the larger point point sizes, would save time and guesswork.

Grouping of Objects - You can create a logo, or other design group by combining elements such as text, graphics, and boxes, but each separate element must be moved individually. It would be helpful to have a method to link all the elements and treat them as one object. This would also be useful for ensuring that captions and labels stay with a graphic when text is reformatted.

Text Wrap Around Graphics - Although this can be done manually, it would be nice to see text automatically flow around both square and irregularly shaped objects. It is particularly difficult to get text to flow nicely around irregularly shaped objects since the opaque text columns block out the image under the text and you cannot modify the text with the image over it.

Importing of Object Oriented Graphics - Imported graphics must presently be pixel based. It would expand the usefulness of Publishing Partner if there were some way to import graphics from object oriented drawing programs such as Easy Draw. On these same lines it is important to make Publishing Partner interchangeable with a great variety of outputs from various programs.

Importing of Word Processor Text - The present solution of having to save word processor documents as ASCII, then running through the importer accessory is awkward, at best. There should be provision to import various word processor files directly into Publishing Partner. A friend of mine has written such a program in GFA Basic, and it even lets you play with indenting.

MINOR FEATURES LACKING

(Nitpicking and pipedreams)

Tagging - When it comes time to modifying type, it is quite easy to forget what point size or style that you used. It would be nice if there was some way to highlight the text and be told its style, font, size, leading, and character spacing.

IMPORT.TXT - If we have to use the importer accessory, at least give us some way to specify an adequate name for the resultant file. It is difficult to

accessory also takes out spaces between paragraphs, so the manual labour is not eliminated entirely.

Unless you prefer the predetermined settings (default) you select the desired font, type size, and type style that you want. Then you can create the columns to hold the text. The material imported into Publishing Partner automatically flows to fit; overflow (too much text for the column) will be stored in a buffer. An overflow symbol will appear and can be handled as described in the manual (see my Publishing Partner tips article.) Columns can be moved and sized at any time. Text inside the columns will automatically readjust, but can also be resized, or changed in font and style at any time. Text can also be created outside of columns one line at a time by creating text objects.

Although fonts are presently limited to Helvetica and Times, they can be displayed in an amazing variety of styles. Normal (roman), italics, bold, underline, tall, wide, shadow, outline, are only a few of the style possibilities available. Text sizes can range from 1 point to 216 points, in half point increments. (Refer to the Publishing Partner quick reference page for samples of fonts, styles, and point sizes.) There are many powerful editing commands available in Publishing Partner. A glance at the menu options will give you some idea of the vast array of text manipulation features available to the user.

Graphics Manipulation

Graphics can be generated using the built in graphic tools of Publishing Partner. Lines, circles, ellipses, polygons, boxes (with square or rounded corners), and freehand

have the name fixed as IMPORT.TXT when we have several files to put through the importer in one session.

Macro Limitations - Every feature of Publishing Partner can be incorporated into macro if it has a keyboard equivalent. However, you cannot change type fonts (Helvetica to Times) from the keyboard. Secondly, the adjusting of leading and character spacing is achieved by adding or deleting (via arrow keys) from the existing default. It would be much easier if the leading and character spacing were based on absolute numbers, the way that point sizes are treated.

Shaded backgrounds with Text - The various fill patterns cannot be used in conjunction with text columns. This happens because text columns are always opaque. The easy solution is for SoftLogik to give the option of transparent text columns. Presently, If you want text to appear over a filled background, you must use text objects, which are limited to one line at a time.

White Lettering on a Dark Background - At the present time this can only be done by using shadow style as a text object.

Saving Portions of Files - Right now you can only save an entire Publishing Partner file. If you want to save only one page or even a portion of one page, you must manually delete all the rest of the elements and pages of the file. It would be useful to be able to take individual pages, or even parts of pages, export them, and append them with other files.

Buffer Speed - Items are transferred to the buffer so quickly that you are never sure if anything has happened or not. This is especially true when transfering an imported graphic to the buffer. It would be nice if the screen would flash, just to tell you that a buffer transfer has occurred.

Lack of Quick Reference Sheet - Although I consider this to be a major omission on the part of SoftLogik, I have provided a useful quick reference sheet and keyboard command list with this article.

Lack of Facilities for Mirrored Columns - You cannot put text columns on master pages, but there are often times that you want the position of columns on odd numbered pages to be mirrored from even numbered pages, to allow for three hole punching, or bindery space. You can get around this by manually creating left and right blank pages, and appending them one at time to your document.

Hide Text Option - This would operate the same way that the hide graphics option does now. With the hide graphics option on, graphics are blocked in so that the screen refresh rate is faster since the graphics don't have to be redrawn. When working with page design the same should hold true for desired text columns that have already been finalized.

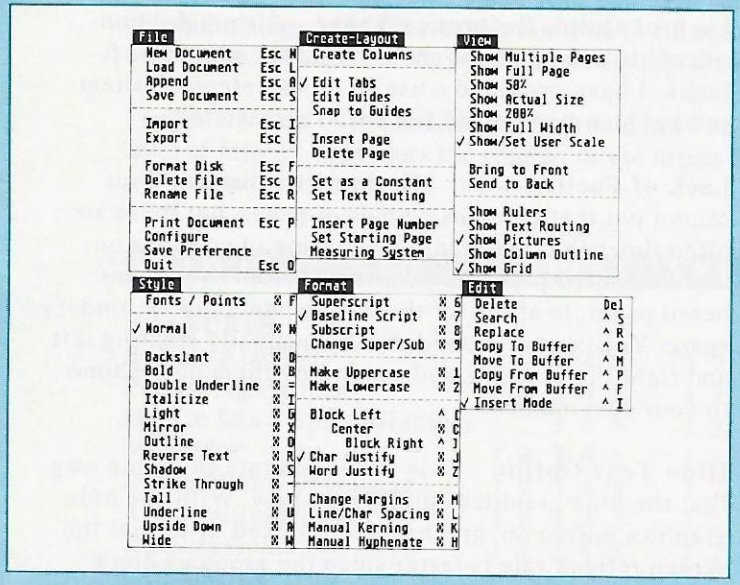
Automatic Indexing, Contents, and Figure Numbering. - A minor consideration, but I do like this feature in Ventura Publisher on the IBM.

Postscript Use - We should be able to take full advantage of the Postscript page description language. It would be nice to be able to read and modify the Postscript file in Publishing Partner.

drawing can all be executed from within the program. Up to forty-eight fill patterns (including user definable patterns), seven line styles, and line widths (from .5 to 72 point) can all be specified. (Refer to the Publishing Partner quick reference page for samples of fill patterns, line widths, and line styles.)

Despite these built in graphic tools, most graphics will be imported files created from other sources. Publishing Partner can import bit mapped images from Degas (uncompressed files), Neochrome, and Tiny format files. All imported graphics can be cropped, scaled and moved at any time. (See the section on importing graphics in the Publishing Partner tips article.)

The built in graphics tools are used more for line and box embellishments rather that the creation of charts and pictures. The qualtiy of graphics created with the built in tools will remain high since these are object oriented and part of the postscript language system. The quality of imported bit mapped graphics will not improve much beyond the resolution that they were created in unless they are reduced in size.



Menu selections available with Publishing Partner

Printing

Desktop publishing programs exist to compile text and graphics in preparation for a printout. A Publishing Partner file serves no purpose at all unless it is printed. There are three classes of printers that can be used to present Publishing Partner files. Since the printing portion of Publishing Partner is so important I will go into depth about the characteristics of the various dot matrix, laser, and typesetting machine printouts.

DOT MATRIX PRINTERS

Many desktop publishing programs cannot even print to a dot matrix printer, but Publishing Partner is quite competent in this area. Virtually all dot matrix printers are supported, including the newest twenty-four pin printers. The dot matrix printouts from Publishing Partner are quite impressive, although the quality varies among the different types of printers. Dot matrix printouts are not really suitable for reproduction, but are comparable in quality to printouts from any other ST program. The first versions of Publishing Partner produced very blocky printouts of small sized text, but this has been corrected in the latest release of printer drivers.

Dot matrix printing with Publishing Partner is a very slow process. A single page can take up to twelve minutes in draft mode, and up to twenty minutes in final mode. Printing speed varies with the version of Publishing Partner and with the type of printer. Originally Publishing Partner was going to use GDOS for its dot matrix printing. The instruction manual refers constantly to GDOS printing procedures. However, the people at SoftLogik gave up waiting for Atari to release the final version of GDOS; they went ahead and designed their own printer drivers. Once GDOS becomes available, SoftLogik intends to support it. This should lead to some standardization for the ST as both Fleet Street Publisher by Mirrorsoft, and the newly announced Atari laser printing system appear to be using GDOS as their prime driver.

Publishing Partner uses special printer fonts with the dot matrix printers: you cannot get the normal printer font or NLQ font from your printer to print out Publishing Partner files. The characters printed with Publishing Partner are truly proportional. For example, with proportional characters the letter 'i' takes up less space than the letter 'm' unlike the monospaced letters on typewriters and most printers. Publishing Partner treats text the same as bit mapped images on dot matrix printouts, and this accounts for the slow printing time. When first using Publishing Partner with your dot matrix printer, experiment to ensure that you are using the proper printer driver. Ensure that a matching printer font is available for each screen font used in your document.

LASER PRINTERS

The desktop publishing technology has been built around the use of the laser printer as the desired printing device. Laser printers usually print out files at 300 DPI (dots per inch), compared with about 75 DPI for dot matrix printers. This quality of printout is satisfactory for most publishing needs. Publishing Partner will print out to any laser printer that uses Postscript. Postscript is a standard page description language. The most common Postscript laser printer is the Apple Laserwriter. There

are many other Postscript compatible laser printers; but be warned that not all laser printers are Postscript compatible.

Laser printing is quite fast, taking three to four minutes to print a full page. The speed depends on the number and size of the fonts used, and the size and number of bit mapped graphics. Most laser printers can print several pages of pure text in one minute. Laser printing on the Atari is much faster than on the Macintosh, which can take up to twenty minutes to print a full page smoothed graphic.

Not many individuals own a laser printer due to its high cost; but most cities have printing or computer shops that offer a laser printing service at a reasonable price per page. The ST uses the same cable to connect to a laser printer as the PC does; and the connection is made through the serial port. Ensure that the Postscript printer driver (PS.PRT) is loaded when printing to a laser printer directly connected to an ST. (The early version of Publishing Partner had problems interfacing with some Laserwriters with certain ROM sets.) If there is no ST hooked up to the laser printer, the Publishing Partner file will have to be transferred to a host machine that is connected to a laser printer. In this case the Publishing Partner file should be 'printed to disk' instead of saved as a Publishing Partner document. By 'printing to disk' Publishing Partner will create a Postscript file that can be sent directly to a laser printer using a telecommunications package from the host machine. The Postscript file can be sent to the host machine by a null modem hookup, or more commonly, by modem communications.

I have tried the ST directly connected to an Apple Laserwriter and a QMS PS800 laser printer, and both work fine.

TYPESETTING MACHINES

Publishing Partner can print to any Postscript device. At this time that includes the Linotronic series of Postscript compatible machines available from Allied Linotype. Linotype printouts generally are at 600 DPI, 1250 DPI, or 2540 DPI (well beyond traditional photosetting resolution). This increased resolution comes at a price. Processing time is considerably longer than laser printing, with a full page bit mapped graphic taking up to an hour at 2540 DPI. The processing time doubles with each increase in resolution. With a price tag ranging from $35,000 to $115,000 (U.S. dollars), not many people own a Linotronic machine. Most sizeable cities should have at least 1 typesetter that offers a printing service; and there are service houses that offer mail in service.

Publishing Partner - The Ugly

BUGS! Those nasty little critters creep into every program, and Publishing Partner is no exception. The sidebar article 'Publishing Partner - The Bad' discussed weaknesses and omissions of the program. Now I will talk about actual errors, items that fail to deliver as advertised. You'll notice that the list is quite small.

Occasional Bombs - The first version of Publishing Partner seemed to bomb (lock up - losing all data in memory) at various times. Most of this is cleared up now, but extremely rarely I still get bombs. I cannot pin down when it occurs since it happens so rarely. It seems to be most vulnerable at the importing stage, and when placing overflow text. I do not really consider this a problem now since it happens so infrequently. However, my advice is to save a file before attempting some unknown experimentation.

Full Disk - The first version of the program didn't tell you when the disk was full while saving a file. You would assume that your file was saved, but when reloaded the file was not there. Of course by this time the file in memory was gone also. Frustrating. This problem has been completely corrected now. This is just a warning for those using the first version.

Extra Spaces - Although the use of the importer accessory solves a lot of problems, it still leaves extra spaces in the imported file. These spaces appear where the end of every line in the word processor was. The only solution at present is to manually delete the spaces, and use wide columns at the word processing stage.

Disappearing Masters - If you delete a page that has a left master on it, you'll find that the left master itself has been deleted also. This does not happen to the right master.

NX10 Draft - I can't seem to use the Draft printer driver on my Star NX10 printer. I get an extra space between each pass of the head.

No Rounded Lines - Although the rounded line feature works on screen, I have not been able to get a printout of a line with rounded ends on a dot matrix or a laser printer.

Before trying out a Linotronic ensure that it is Postscript equipped; not all Linotronics have the Postscript RIP unit as part of the system. I have successfully connected an ST to a Linotronic 300. (Use setting number 3 on the 'RIP' unit, as the other settings give error messages, or print all the Postscript elements but leave blank spaces where bit mappped graphics should be.) The direct hook up between a Linotronic and an ST is the same as a laser printer connection; with a null modem cable to the serial port. The same cable used to connect a PC to the Linotronic can be used. If you cannot connect an ST directly to a Linotronic; use the same 'print to disk' procedure with a host machine as discussed in the laser printer section above.

Although the quality of Linotronic printing is superb, it costs more than a laser printer to produce. This magazine is printed using Publishing Partner produced pages printed out on a Linotronic 300 at 1250 DPI as final art.

Publishing Partner stands up with the best of desktop publishing programs. It is certainly the best value of any desktop publishing program on any computer!

Conclusion

Do not expect to purchase Publishing Partner, rush home, plug it in and create an instant masterpiece. Even with a considerable graphic arts background, computer use background, and knowledge of desktop publishing technology, it still took me quite a while to learn how to really *use* Publishing Partner. I'm still learning. This is

COMMON ERRORS MADE USING PUBLISHING PARTNER

Fonts Not on Disk

I save a Publishing Partner document then try to reload it. I get an error message 'font not found', and I can't load the file back into Publishing Partner.

The screen font(s) corresponding to the fonts that you used in creating the Publishing Partner file must be on the same disk, even the same directory, as the Publishing Partner document file that you save. The best solution is to always transfer the Helvetica and Times screen fonts to your file disks.

There are different screen fonts for the monochrome and colour versions of Publishing Partner. The use of the wrong resolution screen fonts may cause weird looking text, but they do not seem to affect the printouts.

Really Quick Printing

When I give the print command , the dot matrix printer begins to print right away, but either just prints boxes and lines, or form feeds through the whole sheet of paper without printing anything.

Before printing a Publishing Partner file that is in memory make sure that you insert your Publishing Partner program disk in the appropriate drive. When the print command is given, the program looks on the disk for the printer fonts. If it doesn't find them, it can't print any text. If you always forget to swap disks, a good solution is just to put the printer fonts on the same disk as your Publishing Partner document files.

Clipped Letters

My Laser printed Publishing Partner page has characters missing or clipped off at the left and/or right edges of my printout.

Laser printers cannot print anything within 1/4" of the edge of the paper. The solution is just to avoid placing anything within 1/4" of the edge of the page. Be aware that if you have to move elements around on a page that each line, border, text column, graphic, and text object must be moved individually. Plan ahead!

Bad Spacing Between Letters

The spacing between individual letters looks fine on the screen, but the spacing comes out all screwy when I print the file.

Ensure that there is a printer font available for every screen font that you use in your Publishing Partner document. When printing, if the appropriate printer font is not found, another font in use is automatically

not to imply that Publishing Partner is overly complicated, but to warn you that this is a whole new technology with a whole new set of terms and techniques to learn. Publishing Partner is a serious professional program and consequently deserves a considerable amount of time to learn.

Publishing Partner stands up with the best of desktop publishing programs. It is certainly the best value of any desktop publishing program on any computer! If this program is a typical example of the first generation desktop publishing programs available for the ST, then I anticipate the future eagerly.

SoftLogic has set a hefty standard for other packages to follow; I can't see how other desktop publishing packages for the ST are going to top this one!■

PUBLISHING PARTNER
SoftLogik Corp.
St. Louis, MO
$249 Cdn.
$149 U.S.

Bob Thompson, the editor of ReSet, is a founding member of NCAUG (National Capital Atari Users Group), is its past president, and has been the editor of Bytown Bytes (the newsletter of the NCAUG) for some time. Training in commercial art, employment as a publications officer for the Canadian Federal Government, and his interest in computer art have naturally pulled him into the realm of desktop publishing. He started out in computers with an Atari 400, and purchased an ST last year.

substituted; since each font has its own unique character spacing this process results in strange printing patterns.

The most common occurrence seems to be with documents created using 'system' font. Until recently there was no printer font for 'system': The laser printers do not recognize 'system' or 'system bold' fonts, and a dot matrix printer cannot serve 'system bold'. I believe these two 'system' fonts were never meant to be used in Publishing Partner document creation. I think the only reason that they are on the disk is so that the type used in the menu options and dialog boxes displayed with the Publishing Partner program will look familiar to users.

Stick to the 'Helvetica' and 'Times' fonts for now. All Postscript devices have at least Helvetica and Times fonts built in and your instructions will work with laser printers and Linotronic machines. Do not, however, use 'Times' for dot matrix printouts since a printer font is not yet available. (Actually the Times printer driver is now available on a separate font disk that can be purchased from SoftLogik.)

Learn the limitations when manipulating letter size. For example, large text sizes (over 13 point), normally require some degree of manual kerning to close up the spaces between characters.

Bad Spacing Between Words

When I import text, or look at my printouts, I have huge spaces between some words.

Ensure that all word processor documents and ASCII files that you import have not been right justified. When right justified text files are imported into Publishing Partner the number of spaces between words that were visible on the word processor screen remain in the imported file. Extra spaces must be deleted manually. Always turn off right justification when using a word processor to prepare text for Publishing Partner. Justified text saved in word processing mode can be reformatted and resaved using a word processor but it is extremely difficult to unjustify text saved in ASCII format.

The Publishing Partner importer accessory inserts an extra space at the end of every line on the word processor screen. Use long lines when creating text for use in Publishing Partner, and manually delete any excess spaces.

Text Loads in Wrong Size (or font, or style)

I specify the font, style and size of text that I want, but when I import the text it always comes in at the wrong size.

You must set up the desired text size, font, and style BEFORE you create columns, otherwise, the defaults for font, style, and size are automatically used. Text that has been imported at the wrong size can be resized but this is less efficient. I think the best solution is to save preferences so that the defaults are permanently changed to the font, style, and size that you prefer.

As you work, you will discover ways to save time and have the machine match your needs most effectively. In setting font size, for example, it is useful to remember that 12 point, the default text size for Publishing Partner, is generally too large for most uses.

Tips and Warnings

Master Pages

If you have frequently used items you may want to put them on master pages. Page numbers, headers, footers, and repeating graphic elements are good examples of common items that reoccur.

Be warned: there is a bug in Publishing Partner that causes the left hand page master to disappear entirely if a left hand page of a double sided document is deleted. With a long double sided document such as a newsletter, I find it beneficial to save the master pages as a document. Then I create individual pages, (or runs of pages) without the masters, saving them as their own document files. When it comes time for the final assembly, I load in the master pages document, then append the individual document files as needed. The entire newsletter is then in order

Drop Caps

Drop caps can be created by tabbing the first few lines of the text column, then inserting a capital letter of a larger point size as a text object.
Manuscript caps can be created in the same manner. Special styles of manuscript caps can be created with a paint program such as Degas, then imported and reduced.

Pull Quotes and Use of the Buffer

Pull quotes are often used to highlight and emphasize particular passages of the text. They are also an excellent way to fill up a space to complete a page. These are easily created by highlighting the particular passage in the text, then using the 'COPY TO BUFFER' command on the edit menu. While in the "TEXT' mode, position the cursor where you want the pull quote to appear. Then 'COPY FROM BUFFER' to place the text in the correct position. By using macros or the normal menu commands the pull quote text can be sized and changed in style to the desired format.

The copy to and from buffer commands can also be used to move text and boxes, etc. from page to page.

Down Sizing Text

If you get into a situation where you must reduce the point size of text in a multi-columned routed text; always start at the end (the last column). If you start at the beginning (the first column) you will take forever to resize the whole text block as the wrong sized text will keep flowing into the columns you had just corrected.

Use of Folders

It is a good idea to get into the habit of using folders with Publishing Partner document files. There gets to be so many files involved that it is very easy to get mixed up. I suggest that use of the following extenders will also avoid confusion.

- Most word processor files have the .DOC extender. Use this to signify a file saved in WP mode.
- Use the .TXT extender to signify an ASCII file (saved with WP mode off).
- Use the P.DOC extender to signify a Publishing Partner document file.
- An IMPORT.TXT file will be an ASCII file converted through the importer accessory provided with Publishing Partner.

Put all files relating to one Publishing Partner document in the same folder. Remember to put the Publishing Partner screen fonts in any folder that contains a Publishing Partner document file. This wastes a lot of disk space, but believe me, it's worth your sanity.

Column Routing and Editing

Do not use the automatic routing feature of Publishing Partner if the document requires any degree of editing after it is imported. It takes longer to refresh a full screen of text. I find it much quicker, and less confusing, to play with one column at a time, and link the columns manually.

If you have any really heavy editing to do, you are much better off to do the editing on a word processor. The monospaced text of word processors is much easier to read on screen than the proportional text of Publishing Partner.

Use of Macros

You should take the time to set up macros for text styles and sizes that you use often, and for any routine operations that involve several keystrokes. The setting up of macros is quite straightforward and is clearly explained in the manual. A lot of trial and error is needed to get the macros to do what you want: you must be familiar with all the available keyboard commands (The handy reference page I have provided should help.) I recommend macros as worth your time. The only limitation I have discovered, however, is that you cannot change fonts with macros.

Using Lines and Boxes

Get into the habit of inserting all linework and boxes AFTER the final editing and positioning of all the text has been finished. Since the linework does not flow with the text, it is too easy to find that a minor change has caused the text to flow away from the linework, meaning that you have to reposition all the lines manually.

Preparing Text for Importing

- Prepare text on a word processor with justification off.
- Save the text as an ASCII file (WP mode off) to take

out all formatting commands.

• Put the ASCII file through the importer accessory supplied with Publishing Partner to take out all carriage returns. The program automatically saves this file as 'IMPORT.TXT'.

If you choose the above procedures it may be convenient to put the importer accessory on your word processing disk. Alternatively, the preparation steps to this point may be bypassed by typing text directly into Publishing Partner.

• At this point you should choose the desired font, style, and text size.

• Set up the columns to receive the text by using the 'create column' option or manually with the mouse in the object editor mode. Text routing is specified at this stage.

• In the text mode, place the cursor where you want the text to start, then choose 'import' from the file menu. Choose the appropriate file to import and the text will appear on the page.

• The whole column, the text, or individual phrases can now be modified and edited as required.

Justification

Give serious thought to using ragged right text rather than right justified text. The word justify and the character justify options of desktop publishing programs do not look nearly as good as professional typesetting. Justified text is also harder to read than ragged right. If you insist on justifying text use long lines, small text, and be prepared to do manual hyphenation.

Saving Preferences

If you use Publishing Partner mainly for particular applications, take the time to change the default settings to the options that you use most; then save preferences so that your options will automatically appear on boot up. You will be surprised to find out how many variables can be custom modified to suit your preferences.

Importing Graphics

Although the sequence for importing graphics into Publishing Partner is outlined in the manual, a lot of people seem to have problems getting it straight.

• Highlight the import pictures symbol on the toolbox.

• Select 'import' from the file menu.

• Choose the desired picture name, and the graphic will appear full size in the picture buffer.

• Define the desired image area by clicking the upper left corner of the picture you want. Move the cursor to the lower left corner of the image your are defining. Click the mouse. (You can use the scroll bars during this operation.)

• Select the 'copy to buffer' option from the edit menu. Most people get confused at this stage because the transfer to buffer seems instantaneous and, furthermore, there is no cue on screen. As soon as you select the buffer option, a copy of the picture has been transferred to the buffer. There is no screen change at all to tell you that anything has happened.

• When you are ready to place the graphic on the page, ensure that you are in the object editor mode and select 'copy from buffer' from the edit menu. Your cursor now changes to a picture frame symbol.

• Place the picture frame cursor where you want the upper left corner of the picture to go. You can use the scroll bars if required.

• Click the mouse button and the picture will appear full sized.

• The picture can be moved or sized with the sizing squares, or use the 'ALT E' command for exact positioning.

If you want to change the size of the picture but want to keep the same proportions, use the 'ALT E' command and use the same number for both the x and y ratios. Use of the sizing squares will distort the proportions. Any errors in sizing can be corrected with the 'ALT E' command by placing the x and y ratios to 100.

Note that Degas Elite files must be uncompressed (PI1, PI2, or PI3) in order to import into Publishing Partner. You will have to change your Degas Elite defaulted files (PC1, PC2, PC3) by calling them on the screen, setting compression to 'NORMAL', then saving the file as PI_.

Once graphics are in position and sized, you can work faster by turning off the 'show picture' command (view menu). This speeds up the screen refresh that occurs when changes are made.

Dirt on the Screen

As a result of heavy editing and dragging of objects in various magnifications you might notice the occasional accumulation of dirt marks or other unwanted screen garbage. These marks will normally disappear when the screen refreshes, but you can force a screen refresh by typing 'ESC U'.

Memory Limitations

When using Publishing Partner on a 520ST you have to keep an eye on the memory limit. The use of a lot of bit mapped graphics eats up the memory quickly. A one inch square bit mapped graphic of a full screen takes up the same memory as a full page graphic! When creating columns avoid creating too many empty pages. Each empty column that you create takes up 4K of memory. When you put some text into a column (even 1 word) LESS memory is used than an empty column.

I will be happy to answer any questions that you have about Publishing Partner. Please send any problems, questions, tips or comments about Publishing Partner c/o RESET magazine. ■

Publishing Partner Quick Reference

SAMPLE TYPE STYLES

Normal NORMAL
Backslant
BACKSLANT
Bold BOLD
Double Underline
DOUBLE
UNDERLINE
Italicize ITALICIZE
Light LIGHT
Mirror MIRROR
Outline
OUTLINE
Reverse REVERSE
Shadow
SHADOW
~~Strike Through~~
~~STRIKE THROUGH~~
Tall TALL
Underline
UNDERLINE
Upside Down
UPSIDE DOWN
Wide
WIDE

All styles can be combined:
Tall Outline
Bold Reverse
Light Bold

All samples in this column are 10 point Times.

FILL PATTERNS

48 fill types (#0 to #47) are available. Only the first 10 are available on postscript devises. Fill #0 is clear, #1 is white, and #2 to #9 are light grey to black in 12% increments. The other fills are various decorative patterns for use on dot matrix printers.

SAMPLE POINT SIZES (Available from 1 point to 144 points, in half point increments)

4 point 5 point 6 point 8 point
9 point 10 point
11 point 12 point
13 point
14 point
15 point
16 point
17 point
18 point
20 point
24 point
28 poi
32 poi
36 po
40 p
48p

LINES

7 line types are available, in 3 ending patterns, in any width from .5 point to 72 points.

1 ———————
2 — — — — —
3 . . . . . .
4 —·—·—·—·—
5 — — — — —
6 -·-·-·-·-·-
7 ·····

Colour registers from 0 to 31 are available.

KEYBOARD EQUIVALENTS

FILE

New Document	ESC N
Load Document	ESC L
Append	ESC A
Save Document	ESC S
Import	ESC I
Export	ESC E
Format Disk	ESC F
Delete File	ESC D
Rename File	ESC R
Print Document	ESC P
Configure	-
Save Preference	-
Quit	ESC Q

CREATE-LAYOUT

ESC C - then

Create Columns	M
Edit Tabs	T
Edit Guides	G
Snap to Guides	S
Insert Page	I
Delete Page	D
Set as a Constant	C
Set Text Routing	R
Insert Page #	P
Set Starting Page	O
Measuring Syst.	N

VIEW

ESC V - then

Multiple Pages	M
Full Page	E
Show 50%	5
Actual Size	A
Show 200%	2
Full Width	W
User Scale	U
Bring to Front	F
Send to Back	B
Show Rulers	R
Text Routing	S
Show Pictures	P
Column Outlines	C
Show Grid	G

STYLE

Fonts / Points	ALT F
Go to Point Size	ALT P
Normal	ALT N
Backslant	ALT Q
Bold	ALT B
Double Underline	ALT =
Italicize	ALT I
Light	ALT G
Mirror	ALT X
Outline	ALT O
Reverse Text	ALT R
Shadow	ALT S
Strike Through	ALT -
Tall	ALT T
Underline	ALT U
Upside Down	ALT A
Wide	ALTW

FORMAT

Superscript	ALT 6
Baseline Script	ALT 7
Subscript	ALT 8
Change Super/ Subscript	ALT 9
Make Upper Case	ALT 1
Make Lower Case	ALT 2
Block Left	CTL [
Centre	ALT C
Block Right	CTL]
Character Justify	ALT J
Word Justify	ALT Z
Change Margins	ALTM
Line/Character Spacing	ALT L
Manual Kerning	ALT K
Manual Hyphenate	ALT H

EDIT

Delete	DEL
Search	CTL S
Replace	CTL R
Copy to Buffer	CTL C
Move to Buffer	CTLM
Copy From Buffer	CTL P
Move From Buffer	CTL F
Insert Mode	CTL I

SCROLL BARS

Up -	CTL Y
Down -	CTL B
Left -	CTL G
Right -	CTL H

TEXT EDITING

Beginning of Line	CTL ←
End of Line	CTL →
Beginning of Column	ESC ↑
End of Column	ESC ↓
Delete to Start of Line	CTL J
Delete Line	CTL K
Delete to End of Line	CTL L
Turn Off Text Routing	ESC K
Page Foreward	CTL U
Page Backward	CTL T

GRAPHIC EDITING

Use ALT E command to specify exact position and size; fill type; line type and width; etc...

Circle • X1,Y1 - centre of circle
• X RAD - distance to edge

Ellipse • X1,Y1 - centre
• X RAD - Horizontal edge
• Y RAD - Vertical edge

Box • X1,Y1-Upper Left
• X2,Y2 - Lower Right

Line Start and Line End
0 square
1 round
2 arrow

MACROS

Maximum of 63 Characters, 10 Macros (F1 to F10), Start and end Macros with ALT F (1 to 10)

GENERAL COMMANDS

Insert Bullet	ESC 7
Force Screen Redraw	ESC U
Go To Page	CLR/HOME

Move highlighted Object:
SHIFT/ LEFT MOUSE

Create Text Outside a Column (in Text mode) or Force a Column (in Object Editor mode):
CTL/ LEFT MOUSE

Create Text or Object at the Bottom of a pile:
CTL/ALT/LEFT MOUSE

View Text or Object at the Bottom of a pile:
ALT/ LEFT MOUSE

Erase highlighted text, or text/graphic object:
BACKSPACE/DELETE

10th Frame Bowling

Review by Timothy M. Smith

This is it. The pressure is on. Final shot of the final frame and ten pins stand between you and a perfect 300 game. Eye on the aiming point, you move toward the foul line and release the ball in a smooth arc. The ball rumbles down the outside of the alley. At the last second it swings over, smashing into the head pin. One by one the others fall. The corner ten pin wobbles ... tilts ... and finally goes down. You've done it. Success. The above scenario could be taking place in your own den or living room, but you won't have to call in the renovators to extend your house. Tenth Frame from Access Software should be right up your alley if you enjoy bowling. Best of all there are no lane rentals to pay, or maybe worse, rowdy children beside you trying to heave bowling balls through the back wall. This meticulously crafted sports simulation from the creators of Leaderboard Golf is the closest thing to being there.

You are in control, via the mouse, of your "bowler", who is shown complete with baggy bowling shirt, as viewed from behind. The right button sets the aiming point and positioning of the character. When you are ready to shoot, clicking the left button starts the bowler in motion and releases the ball. A speed/hook meter (similar to the mechanism in Leaderboard Golf) allows you to control the ball.

Three distinct play levels: Kids, Amateur and Pro, give this game depth and allow for a wide variation in ability. At the children's level the ball runs straight. As an amateur you will have to contend with hooking as well as speed. As a pro the speed/hook meter moves very quickly allowing little time for error in eye-hand coordination. As many as eight can participate and the score sheet can be printed for each player at the end of the frame.

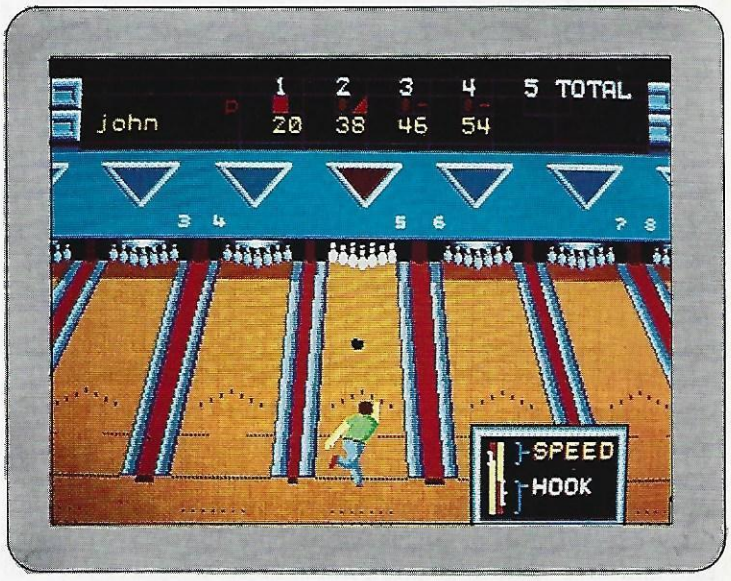
The power of the ST easily handles the animation of the bowler as well as depicting finely detailed background images. Careful attention is paid to the use of light and shadow, providing depth and the illusion of contoured shapes and curves. Attention to detail is also present in the program's handling of sound. When the pins crash, or the audience claps when you make a strike, the resulting effect is what you would expect to hear in a real alley: hollow reverberation. This sound presence is one of the program's best features.

From a technical standpoint 10th Frame easily lives up to the high standards we've seen from Access Software. I did have some minor complaints: the colour combination of red and black on the top scorecard was hard to read and I would have liked to have seen the sound faded away rather than sharply cut off.

From a playing perspective, the game differs from real bowling. For example, the corner pin pick off is usually an easier shot than shown in 10th Frame. While there are three distinct levels, the difference in difficulty between amateur and pro does not resemble the real life distinction. The challenge at the top level comes from the designer's altering the control algorithm, giving you less time to react to changes in the speed /hook indicator.

A possible problem with 10th Frame is that the nature of the subject matter may narrow its appeal. I know this to be the case on previously available simulations of bowling. Those who enjoy the activity itself feel it is one of the best sports games going while those who do not bowl tend to play for a while then put the game away.

This limitation in the game is not a reflection of the craftsmanship that has gone into its creation. Superb graphics, stunning sound and challenging play make 10th



Frame a must for the avid bowler. Even if you don't bowl it is worth a try: who knows, you might become a fan.■

Tenth Frame
Access Software
Woods Cross, Utah
$54.95 Cdn.
$39.95 US

Tim Smith is a researcher/primary technician with a degree in Psychology from Carleton University in Ottawa. He has worked extensively in the private sector assisting companies in organizing or setting up computer information resource centres. A former freelance filmmaker and audio-visual technician, he teaches audiovisual courses part time at Algonquin College of Applied Arts and Technology. He is an editor of a Commodore Newsletter and has contributed software reviews and feature articles to various user group magazines and newsletters.

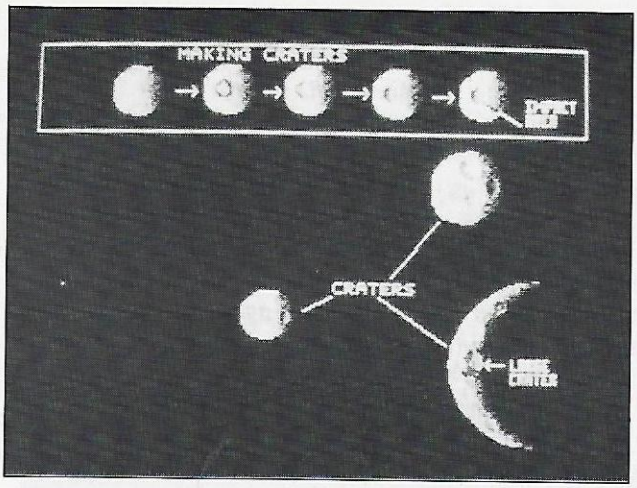


Figure 4.

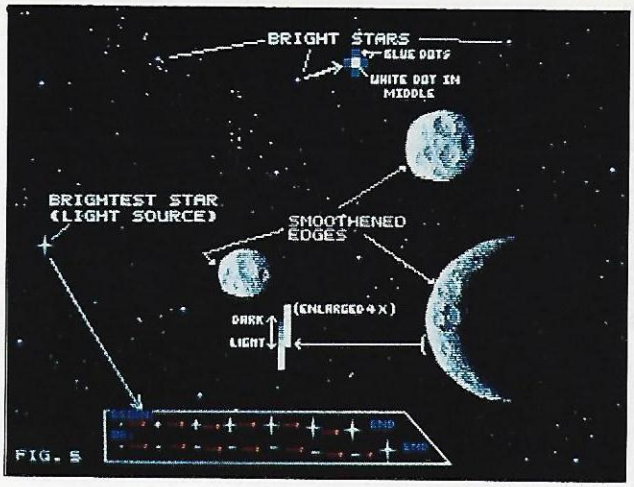


Figure 5.

star-like object with a bright centre, gradually becoming darker towards the end of the star. You could also use the anti-aliasing technique for added realism. Optional, but more lifelike.

You can also make bright stars by setting one of your other colours to dark blue, preferably RGB 007. Enlarge an area of the screen where you have a clear starfield. Make a white dot. Then simply make a cross-shaped star by surrounding the white dot with blue horizontally and vertically. You'll notice you've made a bright blue star, making the starfield more realistic and neat. It is best to place several on one starfield as in Figure 5.

You should have now finished a nice picture of one or two asteroids and a realistic moon, in a neat starfield. Doing this a couple of times will give you more experience for better pictures.

Then let your imagination run! Draw all sorts of planets, moons, asteroids, and meteors. Remember, you do not have to always use the grey colours. For example, look at Figure 6, the asteroid belt.

These techniques may be applied to other types of pictures, especially for abstract objects. In the future I would like to describe how to make beautiful nature scenes, futuristic cities, spaceships, and people.

Good luck with your drawings. ■

Hooman Simyar is a talented young man of fourteen who has been contributing his ideas and articles to the National Capital Atari User Group for some time. James Wright Jr., also fourteen years old, has tested Hooman's instructions for us.

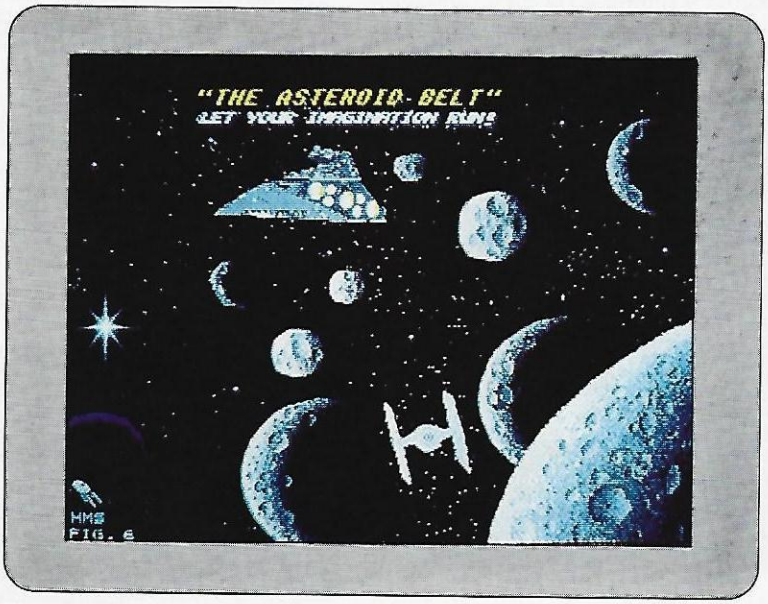
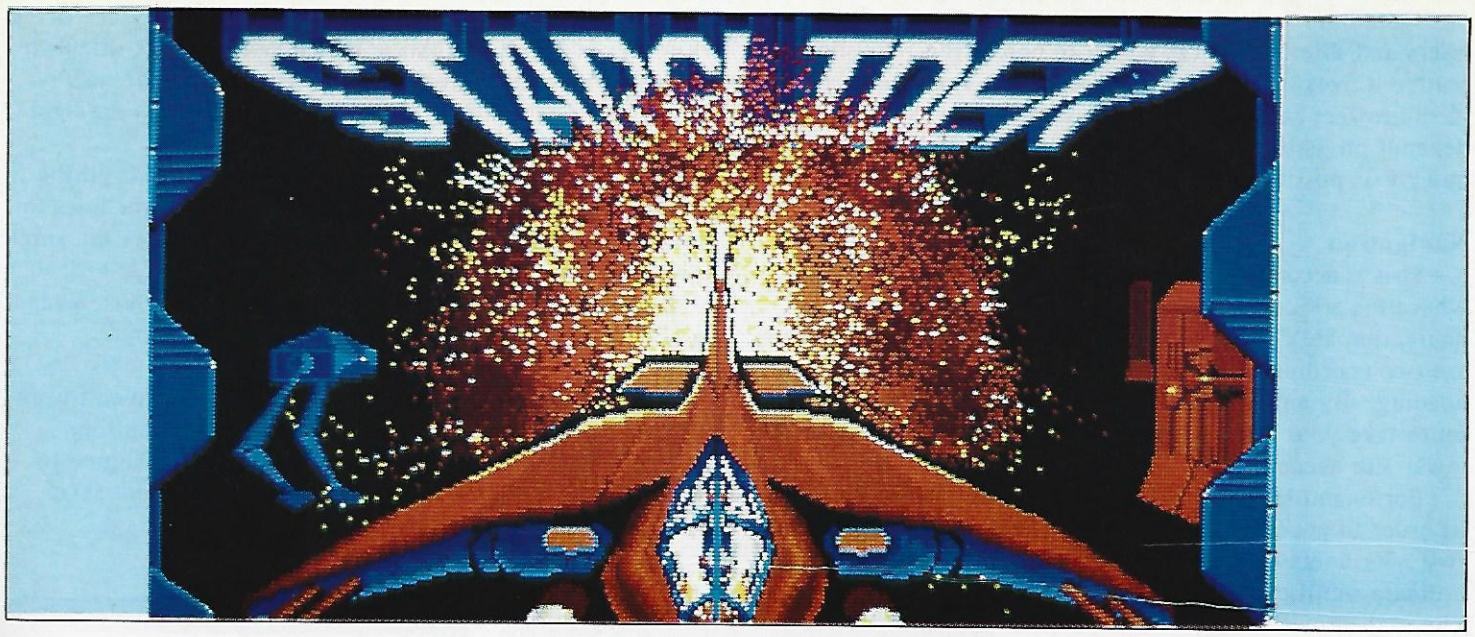


Figure 6.



Ted McNicol

The game Starglider is the first product I have come across from Rainbird Software which appears to have some connection with British Telecommunications plc. Written entirely using the ST Devpac from Hi-Soft, it takes advantage of the speed of assembly language routines in providing a changing panorama of scenery.

The result for the user is a blindingly fast response to keyboard or mouse commands, as well as amazing vector graphics. Although most of the objects are presented as outlines, the sheer number and independence of objects is overwhelming. There are over 15 different types of objects out there, each one having its own characteristics (and dangers).

There are over 15 different types of objects out there, each one having its own characteristics

When you open the box, you find: a novella (not bad, either) giving background for your adventure; a poster of the A G A V, which is your vehicle; a Playguide, containing your Flight Operations Manual; an ST Keyguide, although I find the mouse adequate for most of my flying needs; and an auto-booting 3 1/2" single-sided disk. You cannot succeed with this game without a little study and some deductive reasoning.

To win the game, you must hone your piloting and fighting skills to the point were you repulse the invading forces of Hermann Kruud of Egron. The sheer volume of those forces, as well as their increasing defensive and offensive capacities, make this an extremely difficult goal to accomplish. However, in this game, all the fun is in trying.

Operating your A G A V

You are the pilot of an Airborne Ground Attack Vehicle [A G A V], fitted with a laser cannon and up to two proton missiles. Your vehicle is the fastest, most maneuverable and most deadly object on Novenia.

The mouse is the simplest method of controlling your A G A V. Moving the mouse forward duplicates lowering the nose, causing a decrease in altitude. Pulling the mouse back causes a corresponding increase. The right mouse button, when depressed and combined with a forward movement of the mouse, results in acceleration. Deceleration is accomplished with backward movement.

The only other controls which you will use extensively are the left mouse button to fire lasers and the 'L' key, which launches a guided proton missile. When in a silo, you use the 'I' key to interrogate the computer about the nasties outside, and the space bar to launch your A G A V. As well, the 'BACKSPACE' key freezes all action until another key is depressed. All mouse functions are duplicated on the keyboard, although I find the mouse, once mastered, is far superior.

Supplies

The A G A V, although a fast, tough fighter aircraft, requires constant attention as it quickly drains its power supply. Battling aliens is thirsty work, and the laser, proton missiles and shields are rapidly depleted. The only source for the ship's power is from the power lines running between energy towers. Recharging your power requires lining up between the two towers and flying towards the tower at the apex of the power lines at 0 altitude. Easy, eh! Especially while under fire.

Obtaining more proton missiles and topping up the lasers and shields requires a visit to one of the four silos scattered over the planet's surface. (Note that the locations of the towers and silos change in each level). Survival depends on getting to either the towers or the silos as quickly as possible.

Navigation

This is accomplished by first identifying the locations where the silos and towers are found (see bottom of navigation aid). At the bottom centre of your cockpit view are two coordinates. At the top centre is the current course heading. By applying the navigation aid, the course can be set to take your craft from the current location to the silo or tower site needed.

For example, suppose your current location is 70 - 90. In order to get to the silo at 60 - 14, you must decrease your first coordinate (70 to 60) and increase your second co-ordinate significantly (90 to 14). The map shows a small arrow pointing downward combined with a larger arrow pointing up at 337. The size of the arrows corresponds to the rate of increase or decrease in the first or second coordinate. By altering your course to 337, you will rapidly arrive at 60 - 14. Simplicity itself? Hardly. When missiles are pounding off your shields, the Stomper is headed for you, and your ship is crying out "Energy low", it's hard to keep a clear head. For fast, fast relief, hit the 'BACKSPACE' key. This equates to stopping time, at least until you get your breath back and figure out where you're going.

Strategy

Nice word, that. Difficult to think strategy when your blood begins to boil and the "Attila the Hun" personality takes over. Luckily, there are only a few hints to get you through many an obstacle.

All levels: Keep an eye on your power level, as well as your shields. It's far easier to stock up when you're not on your last legs. Besides, if the Starglider appears, you want to be capable of mounting a pursuit, if not for your own piece of mind, for the 7500 points you may get.

Also, for the same reason, always try to have at least one proton missile in stock. The only way to take out the Starglider is with one of these, and it always seems to appear when you're out of ammo.

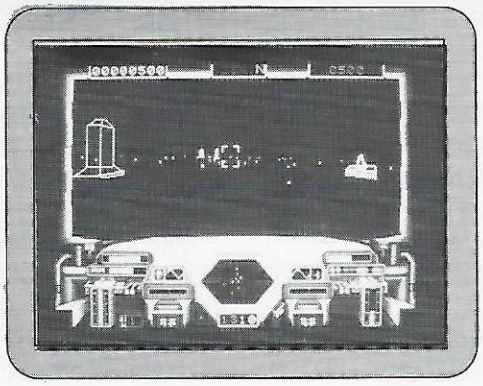
Level one: This is fairly safe. Take a look at the sample scenario below to quickly get out of this level and face the real challenges.

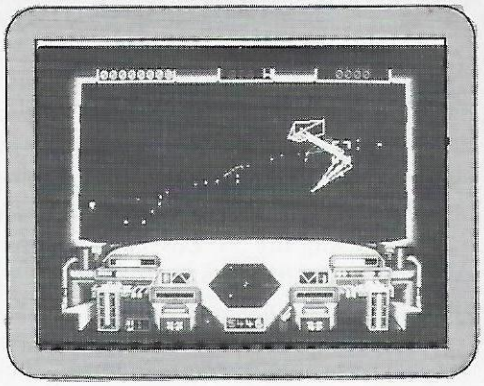
Level two: For some strange reason, those lovely white flapping pyramids seem to be firing at you. They are firing white Egron homing missiles, which can cut your shields to ribbons in seconds. The Starglider droppings have also changed to include these little offerings when you dare get too close.

Level three: Now you've got them mad. Everything is a little more hostile and they've shut off the power lines to prevent recharging. A few bursts of your laser on the single tower quickly gets things flowing.

Level four: Life as we know it becomes a blur. Keep on your toes, keep moving and I hope you ate your shreddies.

Level five: I have been to level five, but haven't been around long enough to enjoy it. Legend has it that our hero, Jez San, made it to 50,000. Others have claimed to have attained a higher score, but the game will not save scores, so it's hard to prove.





Sample scenario

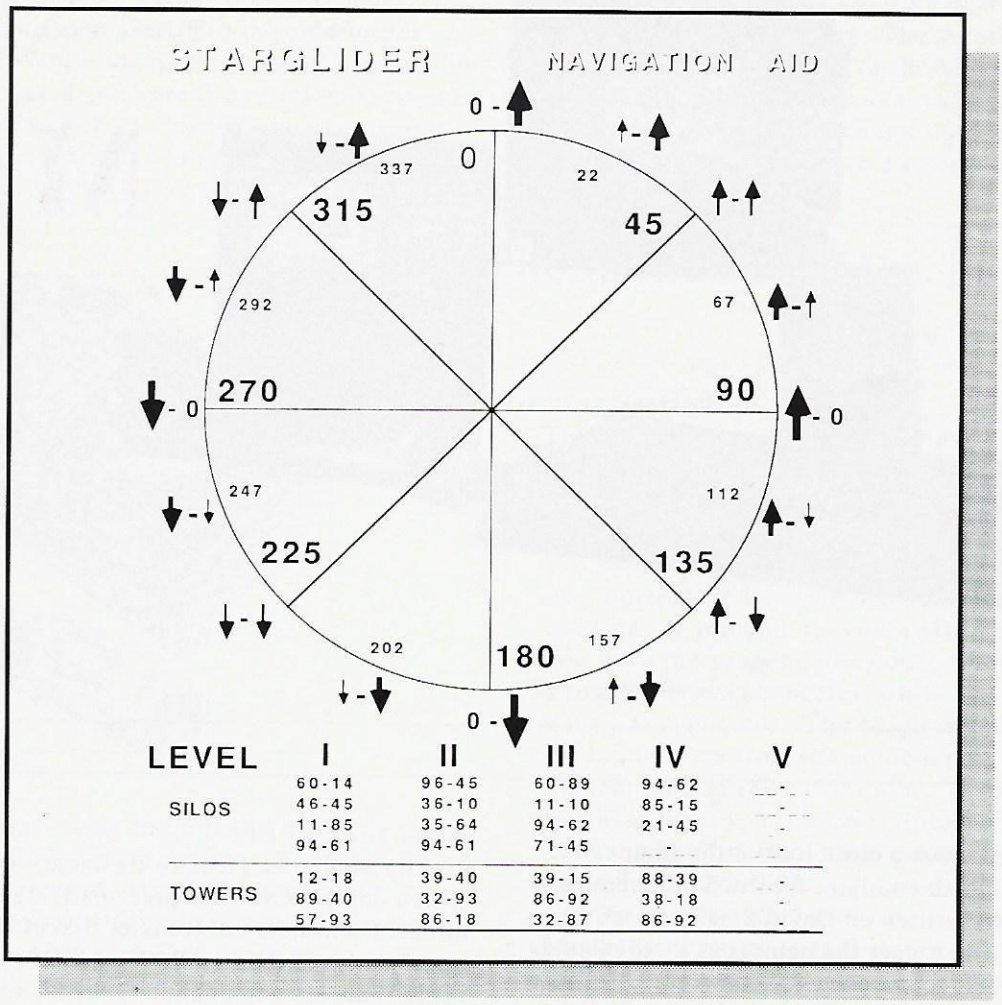
This is a sample of a 20,000 point game, which you should have little difficulty in achieving, if you follow the instructions. It is also mandatory that you have several hours of flying time under your belt.

1. Slow 90 degree turn to course 165 you should see the Starglider. When you see it, rapidly accelerate and when you are close, launch ('L') your proton missile. Steer the missile to the target, avoiding other flying craft, mines, and counterattacking missiles from the Starglider.

2. Stop and go to silo at 60 - 14 This silo (large blue revolving turret) should be very near. Either match the rotation (very difficult) or wait for it to rotate to face you. Fly in and steer to centre. Note the new proton missile waiting to be loaded. The silos produce one missile every few minutes only. Use the refuel time to check out the inventory of nasties ('I'). When you are finished, hit the 'E' key and the space bar will launch you back into the fray.

3. Veer left to course 337 This will take you to the silo at 46 - 45, providing you with a second proton missile.

4. Veer right to course 10 This will take you to your first energy towers. A white tri-launcher sits at the end.



Destroy it and do a 180 degree turn.

5. Fly between the towers at 0 altitude. This will replenish your energy, getting you ready for level 2.

6. Change course to 270 Destroy the diamond mine and the stomper. A missile will be needed for the stomper.

7. Set course to 11 - 85 (3rd silo) and obtain a missile.

8. Set course to 25 - 53 (course = 157) and destroy the walker. This will put you well over the top of level one. Keep an eye out for the Starglider, as I spotted it while attacking the walker once.

9. Set course to 35 - 64 (silo) and recharge.

10. Change course to 180 and travel to towers at 39 - 40. Destroy the purple Juno Cannon and get a quick charge. You can use your second missile on walkers and stompers, which are quite common in this stage.

11. Continue on the same course to the silo at 36 - 10.

12. When leaving the silo, turn 180 degrees. Destroy the mines. You should find the Starglider travelling at 25 degrees. Engage the enemy and take a further 7500 points out of his hide.

Well, that about wraps it up. H. Kruud will never be the same. Rainbird is releasing more software. If it is up to this standard, it will provide many many hours of enjoyment in the fine tradition of arcade shoot-em-ups. Good luck in your own stargliding. ■

Starglider
from Rainbird Software
Wellington U.K.
$64.95 Cdn.
$49.95 US

Keith McNicol has been involved with computers since 1971, when he played games at Simon Fraser University. The relationship continued, a the computer became necessary in his work in compensation and benefits. Ted is presently completing a diploma in data processing at Algonquin College, and has progressed from a 2k Intellivision computer, an 80k Coleco Adam, to the 1040 ST he presently owns. Ted is current President of the 250-strong ST group in the National Capital Atari User's Group.

The Magic Sac

Glenn Brown

I think it's time I took a close look at the Magic Sac, Data Pacific's Macintosh emulator for the ST. There have been a lot of reviews written on David Small's MacCartridge (I know that's no longer the name, but it still sounds good), so I hope to add a few practical comments for those who decide to buy it. By the way, this article is not directed at those lucky ST owners who also own a Macintosh or at Mac owners who are upgrading their machines via the ST. I plan to give an overview of the product for ST owners, and offer a few tips that may help with some of the rough spots.

The specific version that I purchased was the Magic Sac Plus, which includes a cable to connect your machine to a Mac and a battery backup for your clock which works in both ST and Mac modes. This is the version that is carried by retailers in Canada and the United States, the original (non-plus) version is now only available directly from Data Pacific, although they recommend that you purchase the "Plus" version. The suggested retail in the United States is $149.95, and the Canadian SRP is $279.00. The main difference between the two prices (aside from the exchange rate) is the fact that the US version is sold without Apple ROMS, and the Canadian price includes the two Macintosh ROMs needed to get you started.

What Do You Get

The Magic Sac, true to its name, comes in a brown bag which contains a three-piece cartridge (more on that in a minute), a Macintosh transfer diskette, an Atari "pre-boot" diskette (this review is based on version 4.36), a cable that lets you connect your ST to a Mac (for software transfer), and a slim manual. In my case, I bought my Sac directly from Data Pacific, having previously bought Macintosh ROMs from L'n'Y Computers in Washington, D.C.

Opening the Sac is simple, just snap the two halves apart, and you'll be staring at a printed circuit board with a number of components (including, of course, a battery), that is socketed for two chips. Required are Apple Macintosh 64K boot ROMs, parts #342-0220 and 342-0221, revision A or B. Make sure you have the (old) 64K ROMS, because the newer 128K ROMS do not work. Installation of the chips is simple if you follow the directions.

What Does It Do

The Magic Sac is perhaps the most amazing emulator ever made. (An emulator is a device, consisting of hardware and/or software that allows one computer to mimic the operation of another. The Magic Sac fools an Atari ST into thinking it is an Apple Macintosh. Those who needed this explanation should NOT buy one: it requires

a fair deal of expertise and patience, although every upgrade has made the product easier to use.) Usually, an emulator makes a significant sacrifices in performance (particularly speed). While the Sac is presently limited in what it can run (protected software is a problem for now), what it does run, it runs well, with a 20% increase in speed (the Mac runs at 5.8 mHz, compared to the ST's 8 mHz) on a screen that is 30% larger than the Apple machine's.

The "Magic" Sac

The Sac does not presently support the Apple LaserPrinter or hard disks. Beta version 4.36 of the Sac, which has just been released, has made some major improvements, notably the ability to run in double density and automatic error checking.

Hardware Requirements

Before you go running out to buy the Sac, there are hardware constraints to bear in mind. The first thing you'll need is a monochrome monitor. There is a colour version of the software with version 4.36, but it's performance is poor compared to the monochrome version (you can, however, make an enormous improvement in colour performance by installing a Control Panel on your Magic Sac boot disk, with the red colour set to "555". and the green set to "444". The resulting shades of gray are much easier to look at). While you can get by with a single-drive 520 system, frustration will quickly force you to upgrade your memory (to a megabyte), and purchase a second drive (or at least one double- sided drive). The reason for a memory upgrade is simple: with 512K you can emulate a 128 or 256K Macintosh, and with a megabyte you can also emulate a 512K or 828K (not quite a Fat Mac, but certainly chubby). As for drives, most Macintosh software will look for the Operating System ("Finder") before running (Mac owners don't have TOS in ROM). With two drives, this is not a problem; just have your system in drive A and the program in drive B. With one drive you'll go crazy switching disks (six or seven swaps are usually necessary). The solution is simple: buy another drive. Version 4.36 of the Magic software has alieviated this problem to a great degree, by supporting double-sided disks (although not double-sided transfers). This means that you can have a system file on every disk, along with the program.

not quite a Fat Mac, but certainly chubby

Getting Started

The first thing you're going to have to do to get started is get a hold of some Macintosh software (public domain or otherwise). Since I found that getting started was the most frustrating phase, I will detail the steps required:

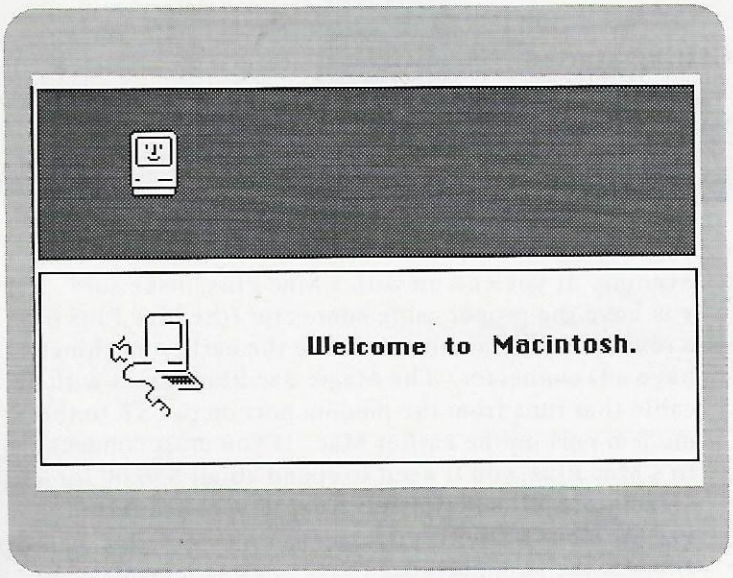
- beg, borrow, or steal the use a Mac for at least an evening. If you end up with a Mac Plus, make sure you have the proper cable connector (the Mac Plus has a round modem connector, while the earlier machines have a D connector. The Magic Sac Plus comes with a cable that runs from the modem port on the ST to the modem port on the earlier Mac. If you must connect to a Mac Plus, you'll need to spend about $30.00 for a "Macintosh Plus Peripheral Adapter Cable", Apple Part Number M0199).
- connect the two machines
- format some disks on the Atari using the Magic Format program (this can and should be done in advance)
- boot the transfer program on the Macintosh and the "Receive" program on the ST.
- put a magic formatted destination disk in the ST, and (single-sided) Macintosh disk into the Mac, and follow the prompts. The process takes about 11 minutes. - repeat as required.

NOTE: those without the patience required can get started by purchasing public domain Magic formatted disks from either of the two N.C.A.U.G. (National Capital Atari Users' Group) groups (Canadian and American, and not otherwise related). The Canadian address is:

NCAUG/ST Librarian, P.O. Box 1385,
Station 'B' Ottawa, Ontario, K1P 5R4
(The Canadian Group sells the Washington Magic Public Domain disks with that group's permission).

And those in the United States can contact:
CURRENT NOTES LIBRARY, 122 N.
Johnson Rd. Sterling, Virginia 22170

Now that you've transferred a few disks, it's time to boot up the Sac. First boot the Magic program, selecting parallel printer and the maximum memory size your machine can handle. Once the program runs, you'll be prompted for a Magic format Mac disk (make sure it's a disk with System and Finder files). If everything goes right, you'll see two screens; the "Happy Mac", followed by the "Welcome to Macintosh" screen, followed by the Macintosh "desktop". Because there have been so many articles that referred to these screens without showing them, I thought it was about time someone included them:



The "Happy Mac" and "Wecome to Macintosh" screens

(I drew these pictures on the ST using Abacus Software's PaintPro program in high resolution. PaintPro, by the way, is virtually a clone of MacPaint, although the just-released version 1.2 has one thing the Mac doesn't: colour.)

The Mac O/S

There's a big adjustment necessary for ST users first encountering the Macintosh environment. The biggest difference, aside from the way it handles fonts, is the way the Mac handles disks. The Mac physically ejects disks, a feat that the Atari drives cannot duplicate. Before ejecting a disk, the Mac writes to it (the Mac buffers some information to speed up I/O, these have to be saved to disk before ejecting it). This means that you must leave your disks UNPROTECTED (scary stuff, eh kids?) and you must tell the system when you want to eject a disk. This can be done by selecting "Eject" from the File drop-down, or by pressing Control-E. Once the disk has been updated, an "A" or a "B" will flash on upper righthand corner of the screen, indicating that it is safe to manually eject the disk. If you think this procedure sounds like a pain, you're right, but it is preferable to trashing your program disk (which is often the result if you forget and do it the Atari way). Another thing that you'll have to get used to with the disks is pressing F1 and F2 to tell the Mac O/S to look for a disk in drive A or B. I have to admit that I have got so used to this that I now find myself pressing F2 to try to read a drive under TOS.

Software

There is a considerable amount of protected Mac software that cannot easily be made to run until the drive modification is available (Data Pacific have promised a box that will connect between your ST and disk drive, allowing the Atari drive to read and write Macintosh software, including the protected variety. This box, which is now in beta test, should be available this fall for about $200.00 US.) Examples of protected software that does not run include: Alter Ego, Archon, Crunch, Deja Vu, Enchanted Scepters, Jazz, Lode Runner, MacChallenger, Microsoft Chart, Microsoft File, Ragtime, Xyphus and others, particularly games software.

Balancing the above is the fact that a significant amount of software does run, including: Asteroids (the ST version is much better), Comic Works, Excel 1.03 (Excel is protected, so it shouldn't be on this list. However, if one goes to the trouble of breaking the program for hard disk installation, it will run on the Sac.), Finders 1.1/4.1/5.1/5.3/5.5, FONTastic 2.7, Fontographer, Fontsie, Freeterm, Fullpaint, Graphic Works, Mac 3D, MacBillBoard (shareware), MacConsultant, MacDraft, MacDraw 1.9, MacMATE (a ramdisk, to be avoided until a later version of the Sac is available), MacPaint 1.5 (only uses a small screen, but who cares?), MacPlaymate, MacProject (something we could use for the ST), MacTools 5.4, MacWrite 2.2 (version 4.5 has some problems), Microsoft Chart, Microsoft Works 1.0 (all but the telecommunications module), Microsoft Word 3.0, Mindwriter, MORE 1.1 (one of the best reasons to buy a Mac!), Multimate (the original Mac spreadsheet), Overvue 2.0 (a fabulous relational database), Pagemaker 2.0, Postermaker, Powerpoint, ProPrint (prints MacWrite files on an Epson, but doesn't use Macintosh fonts), Ready Set Go 3.0, REdit 1.0, Reflex (Borland/Analytica's relational data base), Sidekick, Stella, SuperPaint, Thunder, Videoworks, and many public domain games, notably Wheel of Fortune and Missile Command (although it's a bit ironic to use your Magic Sac to run the Macintosh version of the 8-bit Atari classic).

Problems

The Magic Sac is ideal for the advanced user who wishes to learn a new operating system, or for the individual who uses a Mac in the office and has an ST at home. It is not for the neophyte! There are numerous niggling problems that I hope will be fixed with version 5.0: the program should allow one to change default startup set-

tings, or, at least have parallel as the default printer selection. the transfer program should allow you to port Magic files back to Mac format. This would allow you to utilize one of the LaserWriter printing services available to Mac owners.

Piracy

As far as software is concerned, the Magic Sac opens up the proverbial can of worms. In the past, emulators have tended to mimic less expensive machines allowing those who wish to upgrade the ability to run their software (the best example of this is the CP/M emulator). IBM emulation is also common, but it is logical to expect someone who works on an IBM during the day might want to bring home work (and software). While the Mac is starting to make inroads with business, particularly with desktop publishing, there are few who use a Mac in the office. This leads us to the dilemma Magic Sac owners are faced with: obtaining software. The scenario the advertising material presents is a Magic Sac owner removing the Apple ROMs from his or her Macintosh to use in the Sac. Aside from the fact that this will make it somewhat difficult to use the Macintosh for software transfer to the ST, this is most improbable, given the fact that few Mac owners have heard of the ST, let alone the Magic Sac. The easiest way to obtain public domain software for the Mac is via modem, but few will invest $300.00 in the Magic Sac just to run PD software. I find it difficult to imagine an Atari owner buying a piece of Mac software, taking it to a friends' Mac, and porting that software to Magic format without being tempted to do the same with the friend's software (let's see...I'll take a MacPaint, a MacWrite, a MacDraw...). By the way, I'm in a fortunate position: we do have Macs (and PCs) in my office, so I was able to borrow software for this article (I will, of course, be erasing all those disks with copies of commercial programs that I don't own.) Thanks have to go out to Craig Tremblay, manager of Compucentre Carlingwood (in Ottawa), who let me cable up a Mac and an ST in his store to do the numerous transfers required.

An interesting footnote to the piracy argument is the fact that even Data Pacific are not safe: apparently a User's Group in Germany put the Macintosh operating system on a disk with version 2.0 of the Magic Sac software (they call it "MacBongo"). David seems to have taken this in stride, however: it's his view that version 2.0 is so buggy (compared to the current 4.2) that those who want Mac emulation will be forced (or frustrated) into buying the real thing.

MacBongo has not been the only ripoff attempt: Data Pacific was justifiably upset to find that Best Electronics has been selling EPROM cards which take Macintosh ROMs, and thus can be used as a clone Magic Sacs. The company goes so far as to claim that Data Pacific's Magic Sac software is public domain (not so). This has not escaped David Small's attention: the new version of the software has several layers of protection, the nicest of which formats your disk when you try to run it with one of Best's EPROM cards!

Conclusion

I find it hard to justify this toy, and yet I spend half of my time playing with Macintosh software. Certainly the investment ($299.00 plus whatever system hardware you need) is small compared to the price of a Macintosh. I have to agree with Bob Kelly (of Current Notes): learning the foibles of the Mac operating system alone made the investment worthwhile for me. By the way, those who do buy the Magic Sac should subscribe to Current Notes, just for Jeff Greenblatt's "Adventures in Magic Sacdom" column. Those ST owners with friends who own Macs and who have a sadistic bend should run to the nearest dealer and buy themselves a Magic Sac. (Not that I'm sadistic, but the recommended technique is to boot Excel, resize the window to Mac size, then point out that if it ran 25% slower, it would be just like a Mac...) The bottom line is simple: the Magic Sac is a worthwhile investment for those interested in the Macintosh and running Mac software, but those of you with ST's ALREADY have the better computer. ■

The Magic Sac
Data Pacific
$299.00 Cdn.
$149.00 US

Funny, after four months playing with the Magic Sac, I still can't find much Mac software (that I use) for which there isn't an equivalent or better program written for the ST. MacWrite has fonts, but is nowhere near as good as WordWriter of Boffin (both of which will print in near letter quality, a feat that the ImageWriter cannot duplicate). In terms of graphics packages, PaintPro is MacPaint's twin, and Degas Elite and the Art Director have features that the Mac cannot touch, including colour. I'll give the Mac a slight edge in relational databases that take advantage of the operating system, but Superbase and the GEM version of dBMan are evening the gap. I've played with, and enjoyed, Excel, but I use 1-2-3 in the office, so VIP Professional is better for me. Still, based on quality, I give the edge to the Mac, with the ST gaining fast.

Glenn Brown is a founding member of NCAUG/ST, as well as its past president. He also is past president of Ring 151 of IBM (International Brotherhood of Magicians).

BEYOND WORD-PROCESSING

Timothy M. Smith

The word processor is an extremely powerful tool. Work can be changed by addition or deletion without redoing, and saved for future needs. With the stroke of a key a whole block of text can be moved, copied, or stored; or, just as easily, an entire paragraph can be removed. Databases, electronic spreadsheets, and word processors are all tools. They are designed to make life easier by effectively eliminating a great deal of mental drudgery. Functions like ordering lists or setting page justification become reflexive once the knowledge to operate a program has been acquired.

The power of the word processor alters perceptions about the writing process. So much so, that it has been said that the word processor is a typewriter with delusions of grandeur. Owning such a package leads many to perceive that the quality of their writing will be enhanced. This perception comes from an intrinsic assumption about the nature of "productivity software", that owning the software implies mastery over the process itself.

Articles by magazine reviewers are a constant reminder of this functionalism. Reviews emphasize features. Advertisers do the same. Product X is better than product Y because the designers have included several new functions. Consumers make purchase decisions based on the features of one package in comparison to another. The assumption is that the more the functions of a package can free the individual from repetitive tasks, the more the time gained will allow the quality of the output to improve. Because of the nature of writing this assumption may not be true when applied to the word processor and its interaction with the writer.

Writing is intuitive - a complex synthesis of ideas that are in hierarchical order to produce a coherent whole. However, if one goes beyond the traditional processing of words and applies this concept to the ideas themselves, the result is a relatively untapped area of productivity software. This has already happened with the "electronic outline."

Outline processors have been on the computer market for some time. They were once found almost exclusively on higher end business machines. Such programs as Think-tank, Framework and Kamas, were the result of software designers perceiving the need to assist users with the thought process involved in writing. Recently, this type of program is starting to appear in the lower segment of the personal computer market.

Nearly everyone who writes is familiar with outlining as a process for thought organization. That familiar yellow pad or 3x5 inch index card has helped writers and speakers to improve the coherency of their communications for many years. Communication is the name of the game. It is only achieved by clarity of thought and logical branching of ideas.

Harnessing the power of the computer is like having a "dynamic card file." We can juggle the "cards" more easily electronically, and still utilize the functionalism of the word processor.

All the advantages of the paper outline apply to the computer. One page or screen display can depict the progression of ideas in a document that may be several hundred times larger than the screen. Ideas can be viewed in perspective to other related concepts. This allows easier estimation of the amount of detail to be devoted to a particular point. Electronic outlines have the advantage of being able to move headings along with associated sub-headings and text. Of more importance than this cutting and pasting convenience found on most word processors, the outliner can expand and collapse headings. Many writers find that the final draft repeats points made in the first. The ability to hide a heading or bring one into view permits simultaneous focus on the detail of one area while also viewing that area in context to the rest of the document.

The assumption is that the more the functions of a package can free the individual from repetitive tasks, the more the time gained will allow the quality of the output to improve.

This dual focus is useful in all types of writing. While it makes sense that technical and business reports, which tend to be very linear in form, make the best case for use of an electronic outliner, there is just as strong an argument for the use of this type of software by the average user. This is because of the way many people go about the process of writing something. Remember the college professor who suggested making an outline before answering the essay question on the examination paper? Studies have shown few people do this. Many just start right in, trying to get something down on the page as quickly as possible. Many software designers suggest the real power of the outline

processor is utilized to a fuller extent by collecting thoughts once they have been entered into a system. Some outline software will permit a user to attach an attribute to parts of a document that has been entered with no outline. Using the 3x5 card analogy, this would be similar to flagging all related concepts by a certain colour code. When individual ideas from words to paragraph blocks have been assigned outline headings, a program utility will allow that user to format the document by reordering the attributes.

The electronic outline also addresses another weakness inherent in traditional word processors. The blank page barrier. The writer has learned the peculiarities of the word processing package and is now seated in front of the computer facing a problem all writers have encountered since the clay tablet. Just like the typewriter or pencil and paper the thoughts must be transcribed onto the empty page or, in this case a screen. For some, this blank screen can become an insurmountable wall. Just as it is easier to jot down random thoughts on cards or pieces of paper, so it is easier to enter ideas using the computer as a scratch pad. Once this realization occurs, much of the pressure to overcome the blank screen is removed.

These are some of the main advantages offered by the electronic outliner, but this tool is more than an adjunct to the word processor. Some designers believe outline structures can play a role as building blocks for user interfaces in multitasking or windowing environments. Others visualize outliners in a broader context as part of a separate genre of thought processing software by itself. An example of this comes from Kamasoft in the form of Out Think in CP/M 3.

Many lower end word processors include outliners as part of the package. Word Writer by Timeworks includes an outline processor that allows five levels of topic and subtopic nesting.

Those who use a word processor after switching from a typewriter, say they will never go back and fail to understand how anyone could work with a typewriter. Just as there is a quantum leap in going from the typewriter to Paperclip or ST Word Writer, so it is when changing to an outline processor. It shows how weak a tool the word processor is for thinking or thinking about writing.

At this point it is difficult to predict where the outline processor will fit in the market segment covered by the Atari ST or the lower eight bit computers. The word processor is firmly established in the minds of the consumer as a must have program. Will idea processing achieve the same status as the database or electronic spreadsheet? Will it be the next generation of "must have" software. To answer would be speculation.

One point is not speculation. The outline processor forces you to change the way you write and the way you THINK about writing. Whatever status it achieves, it is safe to say the outline processor will always remain high on the list of personal productivity tools for the computer user at home or in business. ■

Tim Smith is a researcher/primary technician with a degree in Psychology from Carleton University in Ottawa. He has worked extensively in the private sector assisting companies in organizing or setting up computer information resource centres. A former freelance filmmaker and audio-visual technician, he teaches audio-visual courses part time at Algonquin College of Applied Arts and Technology. He is an editor of a Commodore Newsletter and has contributed software reviews and feature articles to various user group magazines and newsletters.

OUTLINE PROCESSORS FOR THE ST

For those who are interested in trying out the benefits of outliners, there are three products on the market for the ST that offer outlining features. All three have features that are worth looking at.

Hippo Concept (Hippo Software)

This program was the first outline processor available for the ST. This program is a bit bulky, and is not suited for large complex outlines. However, the program does have some nice features, if you can follow the manual.

MaxThink (MaxThink Inc.)

This program comes with a manual that is worth the price of the software package. Besides including a thorough tutorial, the MaxThink manual goes into great detail on how to use the program (and outline processors in general) to increase your productivity. Chapters in the manual explain the thought process, and different ways of solving the same problem. This package has great potential, and has many advanced features for those interested in using outliners .

Word Writer ST (Timeworks)

The new version of Word Writer ST includes a pull-down menu with outliner features. Although the features are few in number, this is offset by the ability to use an outliner, a word processor and three spelling checkers, all from within the same package. Not as comprehensive as MaxThink, however the Word Writer ST outliner features are a painless way to learn how to use an outliner.

HIGH ROLLER

by Ross Judson

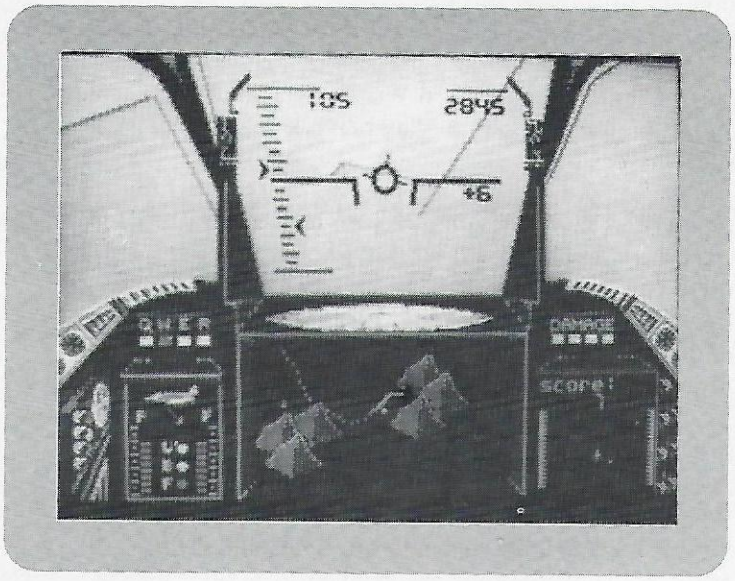
I burst through the cloud layer into the blinding sun, sweeping around the area, searching for signs of the enemy. There he is, attached to my tail like lint on your best pants. My radar warning goes off, he is trying to lock in his missile systems. No chance, I think, slamming my engine thrust through 45 degrees. I bounce up and out of his sights, cutting speed. He sails through, unable to maneuver his craft in the same manner. I angle my thrust forward, and he settles into my sights with the radar lock chattering...

High Roller from MindScape is (yet?) another simulation of everybody's favourite warplane, the Harrier. The fascinating thing about the Harrier fighter is its ability to swivel the thrust of its engines from vertical to horizontal, enabling it to take off vertically and perform maneuvers conventional aircraft could not emulate. In this simulation, though, the emphasis has changed from total realism to enhanced game play. And I, for one, applaud the change. I don't buy computer games to be bogged down in realism. I buy them to be entertained.

And entertainment is something the High Roller provides. The scenario is this: The enemy has attacked by surprise, destroying the majority of the friendly air fleet, leaving everyone open to attack. One hope remains, there is a single Harrier left equipped with the experimental FOFTRAC (Friend Or Foe Tracking Radar Console) system. Your mission, as the best pilot, is to penetrate enemy territory and destroy the base, located over 500 miles away. This is a very difficult task. You do have a high performance combat aircraft, and four mobile ground teams. The ground teams, which refuel and rearm your fighter, can be relocated during the game to prepare new landing sites and depots. Before you take on complete control of all aspects of the battle, you will need to practice. You will definitely need to practice.

After booting the disk supplied with the package you will see two title screens flash by while the game is loading. The artwork for the High Roller title screen is especially well done. Once the title screens are out of the way, an option screen is presented, with a little jet for a mouse. Nice touch. Four possible game modes are permitted, and three difficulty levels. The game may be played in demo, practice, combat practice and combat modes. Practice mode allows you to learn to fly the Harrier, experiment with thrust angles and feel out the limits of its performance. Combat practice immediately places you in the clouds with the enemy surrounding you, ready to kill or be killed. Finally, combat mode is the real thing: you have a mission to accomplish.

Accomplishing that mission is something I've never done, but not for lack of trying. Heck, it wouldn't be fun if I could do it. High Roller is a very entertaining game to play. Just flying the aircraft is fun, with the ability to do high speed barrel rolls while flying 50 feet above the ground at 500 knots. The graphics in High Roller are superb, being high speed and "solid body." For those of

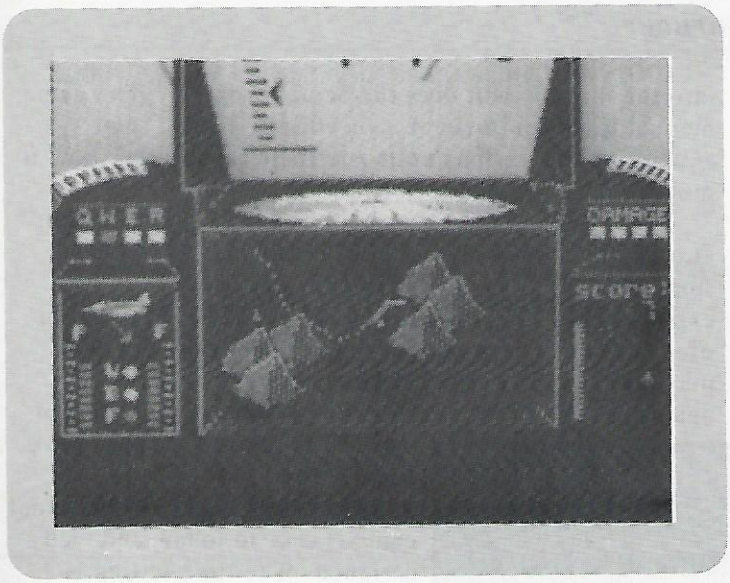


Air Combat

you who do not know what solid body graphics means, there are two approaches to simulating a three dimensional environment. One is to emphasize positional accuracy and utilize line drawings to represent objects. This results in fast, accurate three dimensional effects, but frequently does not seem very realistic, especially for games. The other approach is to use small pictures of

the objects in the game, and change the size of the pictures to achieve three dimensional effects. This generally looks better, but requires enormous amounts of processor time and usually results in a slowly reacting display that changes in distinct "jumps". High Roller uses a hybrid approach, achieving both speed and visual appeal. Mountains and other landscape objects are represented with line graphics (filled in though), and enemy fighters and other aerial objects are represented with the solid body technique. The net result is a game with a very smooth animation display. But enough about the visual appeal.

You have a number of weapons available, including cannons (machine guns), bombs, and missiles. These weapons systems are completely up to date, with many instruments to help with their use. There is a complete heads-up display with altitude, roll, and velocity indicators. Various types of sights will manifest during the game, including a bomb sight, floating missile sight and the normal gun sight. There are damage indicators, a small schematic indicating your remaining weapons resources, and of course the FOFTRAC system itself, your most useful display.



FOFTRAC Display

FOFTRAC gives you a complete view of your surroundings and superimposes the enemy's flight patterns. It isn't quite as easy to use as the player might like, though. To activate the system for a given area, you have to fly to the exact centre of the FOFTRAC region, and be above 16,000 feet. At this point the FOFTRAC cameras will take a snapshot of the area and the system will begin to operate. This brings me to the a fault in the game. Activating the FOFTRAC system for a given region takes some fairly precise maneuvering, and since you are in and out of a region quite quickly, frequently isn't worth it. The enemy flight paths are shown regardless, and this is what you are interested in primarily.

Combat itself is very well thought out. The high speed graphics combined with the high and low combat zones produce a very playable system. It's been a long time since a game has given me as much fun as High Roller did when I survived several enemy fighter attacks in a row. Of your options, machine guns and missiles are the best (I prefer aerial combat). You have to be closer to your target to use the cannon, but when you hit the enemy you can actually see small explosions, and if you do enough damage he is blown away. With missiles you need only achieve a lock on the enemy's plane, and you fire off the missile. Chances are, it will seek out and destroy the other plane. Naturally, the enemy has missiles as well, and doesn't hesitate in their use. Defence against missile attacks is hardest. Several options are detailed in the manual, but the most effective (and easiest) that I have found is to release chaff, either incendiary or metallic, in order to divert the missile. Each of ten options will work against one type of missile. So, when you run out, you should probably try the violent last minute maneuvers suggested in the manual.

When the bomb sight is turned on, it moves around indicating the point on the ground that a released bomb will hit. The resulting explosions are quite detailed. In fact, flying at high speed through the mountains bombing the enemy radar towers is almost as much fun as the aerial combat. The graphics really shine in ground combat. The enemy has a base, of course, but so do you. Four relocatable bases are yours to command. To move a base, you must land in the appropriate sector. Landing on ground that is not prepared is not very easy, as you must be extremely precise. After you have landed, pressing the correct call key for a base will cause that base to start travelling towards your position at the maximum possible speed, roughly 500 knots. Naturally, if you decide to sit on the ground and wait, you will probably be attacked by ground forces.

Eventually, by leapfrogging your bases towards the enemy, you can make an attack. Since I have never achieved this, I can't tell you much about it. High Roller is more complicated than an arcade game, but offers spectacular graphics and sophisticated game play. If you want a flight simulation that's fun to play, this is it. ■

High Roller
Mindscape
$41.95 Cdn.
$29.95 US

Ross Judson is studying computer science at Carleton University, specializing in management and business. He is very interested in stereo equipment, and, of course, computers.

OGRE

Keith Burnage

Ogre (o'.gur) noun: a man-eating giant or monster of fairy tales. With that bit of knowledge, and the fact that Ogre comes from Origin System Inc., makers of the Ultima series, the only surprise is that this is not just another fantasy game. Instead, Ogre is the first war game for the ST, and like Origin's other games it is a winner.

If the name sounds familiar it is because Ogre is the computerized version of the board game of the same name, which in turn was based upon a book. However, unlike the board game, that comes across like an ogre with its charts and pages of rules, this version handles all of the tedious aspects of war games.

Ogre is a game for one or two players; unfortunately, in a one player game you can only play the defender. The object of the game is to knock out the other side. In a one player game this means stopping the Ogre from destroying your command post and knocking it out. The game comes with two models of Ogres, which can be set to one of the three intelligence levels. This in effect gives you six opponents to face, giving the game a longer shelf life. As your skill improves you can continue to challenge yourself against a better computer opponent.

> Ogre, like the mythical monster, is quite capable of taking on anything and everything.

This game requires strategy. Do begin with the two manuals that have been provided. As is usual with a game from Origin this documentation deserves as much praise as the game. It is nice to see a company put as much effort into the manual as it does the actual program. The game manual leads you through everything, step by step, explaining the various units and their capabilities, how to move and attack, and so forth.

The Strategy and Notes book is where the documentation really shines. While most companies would have stopped at the manual Origin provides us with an explanation of the various defence strategies that can be used, and there is a section that explains how the Ogre may counter the various defence strategies employed against it. This sort of effort helps to make Ogre one of the best organized games I have come across.

Just like the manuals the actual game is easy to follow and well designed. The time setting is somewhere in the 21st century with you in command of a mixed force defending a command post. Your opponent is a solitary enemy unit. The only problem is that this lone unit is the most advanced cybertank invented by man, known to the foot sloggers as "Ogre." Like the mythical monster it is quite capable of taking on anything and everything.

Besides setting the intelligence level you can choose from one of five preset fields or you can edit these preset fields by adding crater and rubble hexes. Missing from the terrain are features such as hills that block the line of sight. Since both sides have a clear view of all of the

forces there is no possibility of ambushing the Ogre. The game does allow you to build your own maps and to decide what mix of forces you will command. These choices may be saved on disk. Up to five user defined maps can be saved but the effect of making your own maps has a minimal effect on the strategies used by either side.

One of this game's best aspects is that while the Ogre is "the" perfect weapon, you have to learn how to knock it out with the five different units available: howitzer, infantry, ground effect vehicle, heavy tanks and missile tanks. In this game all units are not created equal. Each unit has its own set of characteristics but unlike the enemy you have no perfect unit.

The most offensively powerful unit, the howitzer, cannot move or defend itself. A heavy tank, perhaps the most balanced unit with good defence, attack and movement characteristics, has to get within point blank range to fire on the Ogre. Anything that gets that close tends to last as long as a snowball in the middle of July.

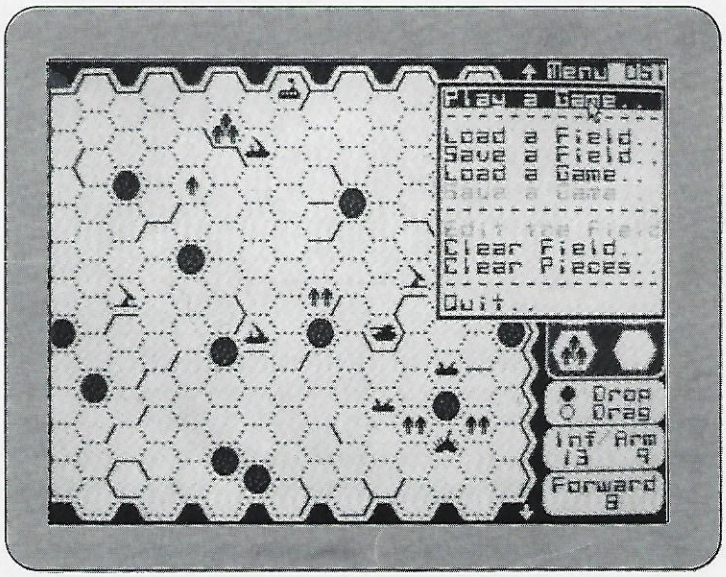
This mixture of units makes Ogre challenging, like a game of chess. Figuring out how to utilize your forces against the perfect weapon makes this a game you will not master quickly. Although winning takes time, learning how to play does not. This game is very user friendly. To move all you have to do is click on a unit and drag it. This procedure is also used for attacking except you drag the unit on top of the Ogre. All selections are made with the mouse and the left button. Its that simple!

As well, Ogre allows you to correct mistakes. Using the 'UNDO' option will cancel the last order or move you issued. You may be told that you have not moved all of your units or that you have a unit that is capable of firing on the Ogre. For me this feature is a definite plus. When playing other games I find it frustrating to realize I have forgotten to use off-screen materials.

There are two functions that aid you in your decision making. By clicking on the 'RANGE' option you can see how far a unit can move and fire. Also 'KILL%' lets you know how successful your attack will be. One thing you learn fast is to take advantage of the fact that you can have your units combine their attack strengths to increase the kill%. You cannot however, combine attack strengths if attacking the Ogre's treads. To sum up, these aids help make Ogre a snap to learn and play.

The graphics, like the rest of the package, are well done. Each unit is presented crisply and the Ogre even has two blinking tail lights! One good aspect is that Ogre lets you know the status of your units by changing their colour. If you have moved a unit as far as it will go or used it to attack its colour is changed from black to red. A unit disabled by the Ogre is coloured blue. A minor detail, but it lets you concentrate on the actual game. The one graphic element you will soon come to dislike is the way your units disappear into vapour when destroyed. Unlike Origin's Ultima series this game can be played in an evening; but, like the Ultima you can save your game. The appearance and play are smooth, without glitches. This surprised me since I am a very picky person who always has a wish list of added features for games. In this case I only wished for two things: a wider selection of terrain types to have on the map and the ability to play the Ogre in a solitaire game. After getting beaten time after time it would be nice to play the opposing side. I would especially like to see how the computer would defend against the Ogre.

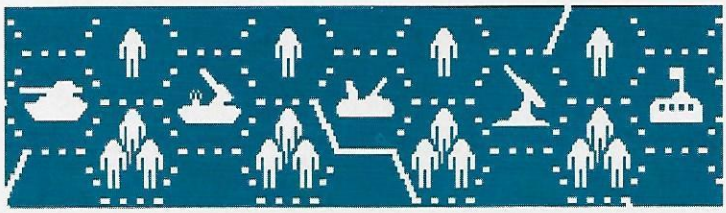
Like the other games from Origin System Inc., I found Ogre to be a well rounded game. I liked the manuals, ease of use, and the messages and features that made it a fun game to learn and play. To me, there is no doubt that

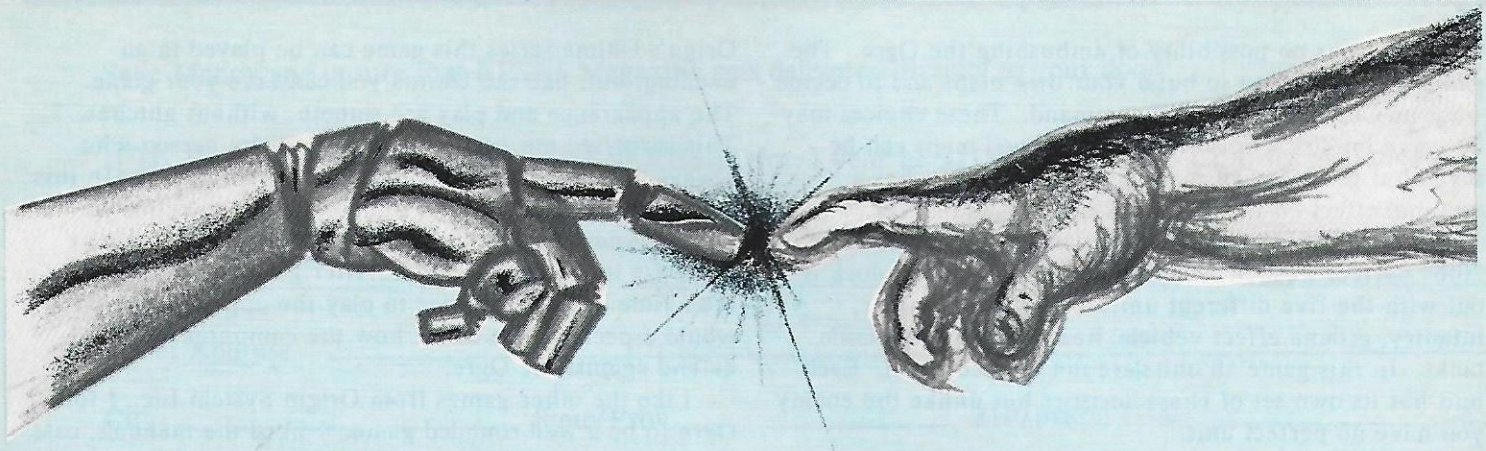


Ogre is worth buying and will reward you with hours of fun. ■

OGRE
from Origin System Inc.
$69.95 Cdn.
$39.95 US

Keith Burnage is a VTR editor for National Defence. He began with an Atari 800, to combine his interest in computers with playing historical simulations, and has recently acquired an ST. He is presently the Director of the NCAUG in Ottawa, and has been reviewing software for the club's newsletter since 1985.





Artificial Intelligence

Thinking Machines

by Kay James

It is scarcely surprising that there is no simple definition of Artificial Intelligence, for the concept of intelligence itself is far from clear. In practice, psychologists and psychometricians take as the working definition of intelligence "that which is measured by intelligence tests." A similarly circular definition of an (artificially) intelligent system would be "a system whose behaviour would, if exhibited by a human being, be described as intelligent." The term Artificial Intelligence (AI) is used to refer to manufactured systems producing intelligent behaviour, and also to the relatively new research field concerned with these systems, combining work in cognitive psychology, computer science and philosophy.

Although AI has its origins in the ideas of 17th century philosophers such as Hobbes and Descartes, who first defined thinking as the rational manipulation of mental symbols, it is the processing power of the computer which has made possible the enormous amount of research currently being undertaken in this area. The debut was at Carnegie Tech in 1955, when Allen Newell, Cliff Shaw and Herbert Simon began their work on Logic Theorist, a problem-solving program. They introduced the idea of "heuristic search": one of the central concerns of AI.

Consider a problem-solving system with procedures for generating and testing potential solutions. Where the number of possible solutions is fairly small, then standard programming procedures are applicable. However, where each choice leads in turn to several new alternatives, and so on, consideration of all solutions soon becomes impossible. In chess, for example, a player typically has thirty or thirty-five legal options, and for each of these the opponent has the same number of legal responses; to look ahead for one full move therefore entails consideration of about a thousand alternatives. Looking ahead two moves involves consideration of one thousand possibilities for each of these alternatives (for a total of one million), three moves involves one billion, etc. An exhaustive search for a full game, say about forty moves, would mean generating and testing ten to the power 120 different possibilities: this is more than the number of distinct quantum states of all the subatomic particles in the history of the universe. This phenomenon is known as "combinatorial explosion."

It is avoided by reducing the search-space non-arbitrarily, so that a useful result can be obtained on a realistic time-frame, and with a reasonable amount of processing power. Fairly reliable though not infallible procedures ("heuristics") can be devised that would increase the system's chances of selecting an optimal move. In the case of chess, these would be rules like "other things being equal, it is better to capture pieces than lose them", and "activate pieces early", together with metarules dictating the ways in which they should be combined, and their precedence at each stage of the game. Although the

heuristic rules are not in themselves infallible, when formalized into a system they operate unambiguously and so produce consistent results when fed the same data.

It is obvious that systems with various degrees of chess-playing ability can be devised, depending on the number and quality of the rules incorporated. This illustrates one of the main differences between regular procedural programming and "intelligent" programming - regular programs either produce the required result or they do not. Intelligent systems (like people) can work very well, fairly well, rather poorly etc. They can also be devised to operate with incomplete, uncertain or changing data. Their role is not to replace regular programming procedures but to augment them; where a problem can be solved by the operation of a precise algorithm then this is the best choice, unless it is unrealistic in terms of processing capacity or time.

The major practical application of AI at the present time is in "expert" or knowledge-based systems. These aim to incorporate the problem-solving ability of an expert

Intelligent systems (like people) can work very well, fairly well, rather poorly etc.

in a particular domain, and are useful in two main ways; they make that expertise more widely available, and reduce the vulnerability of a process dependent on the knowledge of a few individuals. Expert systems do not retire, get sick or have "off days", neither do they leave to join the competition. They can take over routine decisions, freeing the expert to concentrate on exceptional cases, and they are readily transportable, enabling less experienced individuals far from head office to operate at an expert level of competence. They can also be adapted to provide training. In short, expert system development enables industrial or commercial organizations to make fuller use of their expertise, and this impacts directly on their profitability. A few examples: "Maintenance Assistant" maintains robots used at Ford; Syntelligence's "Underwriting Advisor" is expected to save commercial insurance companies $10 million each year; DEC's "XCON", which configures its VAX computers, saves $18 million annually.

Expert systems can, of course, be based on the knowledge of several experts; moreover, since they are formalized they are subject to assessment and improvement, and so their expertise can be cumulative. Also they are not limited to the processing capacity of a single human brain, which will make them increasingly important for complex real-time decision making situations such as air traffic control. Other applications of AI include voice recognition systems and automatic vision.

Does this mean that computers running AI programs are thinking machines? Turing suggested that the issue should be treated practically; if observers communicating over a keyboard link, free to ask any (non-direct) questions and initiate any conversation, were unable to distinguish between a computer and a human being, then the computer should be regarded as intelligent. It is tempting to say that however well the machine performed it would not be "really" thinking - surely human intelligence is more than this? However, the issue may be as much emotional or verbal as philosophical. We have no problem with the idea that planes "really" fly - even though they do not have feathers, or come from eggs. They fly, but in a different way from birds. If machines which pass or surpass the performance tests are ever developed, we have the choice of allowing that they really think, or reserving the word for the human activity and coining a new word for thinking as-done-by-machines.

AI techniques can be explored on the ATARI. Mindsoft's Expert Opinion is a "shell", which provides the opportunity to experiment with expert system techniques, without learning a special language. AI programming generally uses a fifth-generation language such as Lisp or Prolog. There is a good, well documented version of Lisp available in the public domain; XLISP by David Betz. Commercial versions of Lisp for the Atari are Cambridge Lisp from Metacomco and Lisp/ST from Robinson Systems Engineering.

Does this mean that computers running AI programs are thinking machines?

For further reading:

on practical aspects of expert system development:
- Paul Harmon and David King (1985) *Expert Systems: Artificial Intelligence in Business*, Wiley Press;

on the philosophy of AI:
- John Haugeland (1985) *Artificial Intelligence: The Very Idea*, MIT Press;

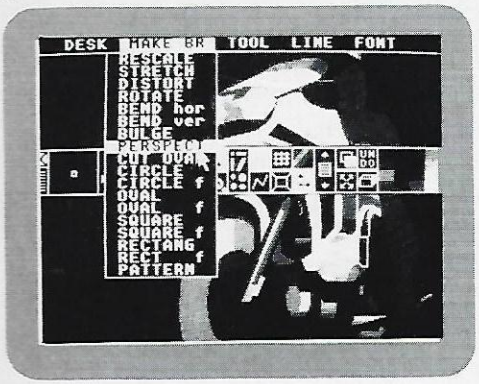
on the nature of consciousness in man and machine:
- Douglas Hofstadter and Daniel Denett (1981) *The Mind's I*, Penguin Books. ■

Kay James has a B.A. in Philosophy and an M.Sc. in Cognitive Science. She recently spent two years in England, working with the AI group at Warwick University. Based in the Ottawa area, she is a knowledge engineer and AI consultant.

Mini-Reviews

AEGIS ANIMATOR
(AEGIS DEVELOPMENT):

This is a package of two programs. Aegis Animator ST features three animation types, metamorphic, cel, and colour cycle: these can be used separately or together to create professional animation. There is also



Aegis Animator

an optional command language included for advanced users. Aegis Player lets you create animation discs that may be given away without infringing on any copyrights. $74.95 Can. $69.95 U.S

PRINTMASTER PLUS
(UNISON WORLD):

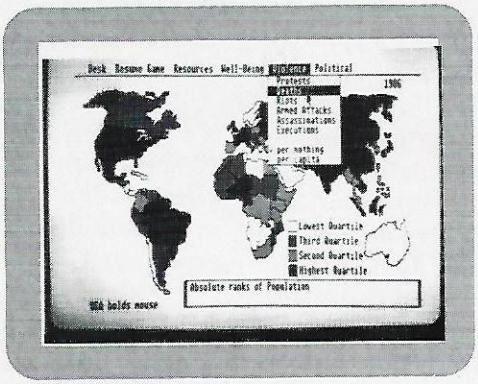
A replacement for the original Printmaster with a few improvements. Now you can design your cards, banners, signs, etc. in any order, and obtain a print preview at any time. As with the original there are a large number of graphics and fonts available, and the Art Gallery discs are supported by Printmaster Plus. $44.95 Can. $34.95 U.S

R.A.I.D. (MICHTRON):

A new debugging utility that has a mini- assembler/disassembler that allows you to make temporary patches of bugs. The copy function will move a block of memory to a destination address. The fill function will fill the address space designated. R.A.I.D. features symbolic debugging of global symbols including those symbols used in most C compilers. $69.95 Can. $59.95 U.S

BALANCE OF POWER
(MINDSCAPE):

A game of geopolitics in the nuclear age, for one or two players, that lets you try your hand at being one of the superpowers. An extensive



Balance of Power

data base makes this simulation play like the real thing and also an educational experience. Four levels of difficulty offer a range of foreign policy options to raise your prestige value, but not at the cost of a nuclear war. Probably the most innovative and thought provoking game to appear in a long time. $59.95 Can. $49.95 U.S

FLIGHT SIMULATOR II
(SUBLOGIC):

For those who have always yearned to fly, but do not want to lay out the bucks for the real thing, this simulation is close. Flight Simulator has a comprehensive instrument

Flight Simulator II

panel and lets you pilot a Cessna 182 RG or a Lear jet around a 10,000 X 10,000 mile world with 120 airports at your disposal. The smooth graphics, strong attention to detail, and unique modem option that lets you fly against a friend make this one a winner. $74.95 Can. $64.95 U.S

GFA FOOTBALL (GAMESTAR):

An action/strategy game that uses a "in- helmet-perspective" rather than a birds eye view of the field. While unique, it is limited to control over the player who will receive the ball or cover the ball carrier. It takes time to get used to this game, but there are dozens of offensive and defensive plays to sustain or shut down a drive. The game includes twenty-eight hypothetical teams from which to choose. $49.95 Can. 39.95 U.S

Championship Baseball

CHAMPIONSHIP BASEBALL (GAMESTAR):

A strategy/action game that is similar in look and style to the original 8-bit game, but is better in every way. A split screen shows the infield, and a view from behind the plate to see where pitches are going. You can draft a team, and play in a twenty-four league against a human or computer opponent as you seek to make it to the Championship series. While the players are not based on real ones, the game does rate each player on all aspects of the game. Championship Baseball has good graphics that include base coaches, and shirtless fans sunning themselves in the stands. $49.95 Can. $39.95 U.S

COLONIAL CONQUEST (SSI):

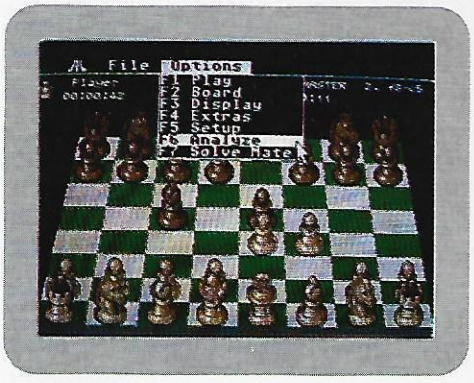
Another world domination game that first was a hit for the XE. Unlike Balance of Power this game can be enjoyed by all ages; it is rated as an

Colonial Conquest

introductory level game by SSI. Colonial Conquest takes place during the Age of Imperialism (late 1800's to 1918) and allows six players to vie for the title of greatest nation using subversion, espionage, economic aid and military might. A definite winner for the XE the same will hopefully be true for the ST. $49.95 Can. $39.95 U.S

CHESSMASTER 2000 (ECA):

Yet another Chess game with twelve difficulty levels and the ability to show the board in either 2D or 3D perspective. Other features include a large library of opening

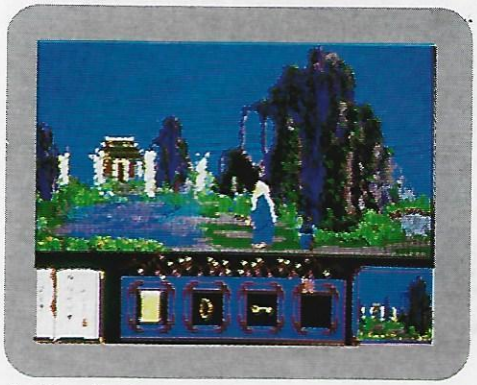


Chessmaster 2000

moves. Should you become stumped Chessmaster can give you helpful hints. For the beginner there is a teaching mode that shows all of the squares to which you can move a piece. The expert has a library of 100 "classic" games to test his or her skill. $64.96 Can. $54.95 US

GOLDEN PATH (RAINBIRD):

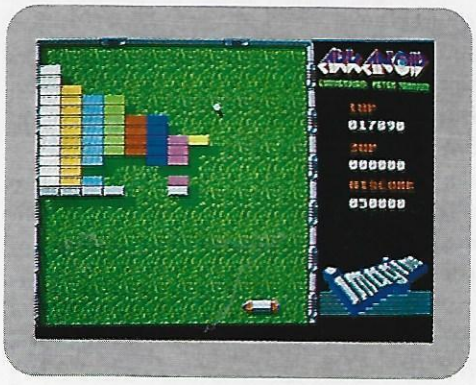
An oriental youth is turned into an old man on a quest. This is the premise for the Golden Path, in which you discover and fight for valuable objects. Many of the objects are needed to continue the quest, since others' cooperation is always of value. This graphic adventure is certainly difficult, with about 100 screens to traverse, but is definitely enjoyable. But choose your path carefully.



Golden Path

ARKANOID (IMAGINE SOFTWARE):

You've seen it in the arcade!!! Now, kids, play it at home! WARNING! This little package is

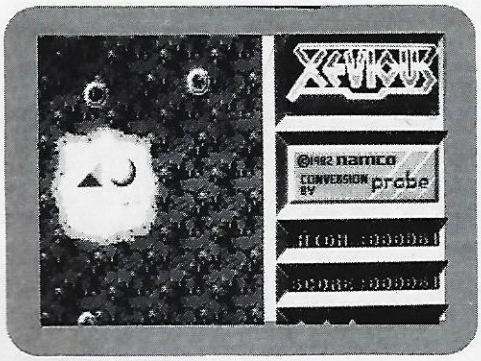


Arkanoid

addictive. From PONG to BREAK-OUT to ARKANOID there is a clear evolutionary process going on. Having played the arcade game in 3 provinces, at great personal expense, I can honestly attest to the superiority of the ST version.

XEVIOUS
(PROBE SOFTWARE):

Another arcade favourite comes to the ST. In this challenging game, the object is to obliterate all traces of the enemy (on the ground and in the air) as you fly over their territory. The major problem is that they shoot back. The graphic display is certainly up to par. The playability is very good, and the price is right. Just think of all the quarters you'll save.



Xevious

BARBARIAN (PSYGNOSIS):

Great graphics and sound are the highlight of this game. The challenge is to descend into the underground kingdom of Durgan, kill beasts and unsavoury characters, destroy the jewel and escape as the timer counts down. Hegor, the hero you control, is great, grunting his way through the exertions you command. Controls are simple and well laid-out at the bottom of the screen. My one complaint was the heavy copy-protection scheme, which forced many people to return to the store until they got a copy which worked on their ST.

MIDI MAZE
(HYBRID ARTS INC.):

After many months of rumour, MIDI MAZE was found running at the BUFFALO ATARIFEST. It was a runaway winner, with lineups all day, waiting to play. The original name, "KILL A HAPPY FACE" was more descriptive. This is the first of many (I hope) games for the ST in which more than two players can participate. You control a colour-coded "Happy Face", seeking out and dispatching other innocent happy- faces before they turn on you. Each "kill" results in a move up a ladder, with the winner reaching the top first. Now, if only ATARI would produce some portables.■

C Programming, continued from page 53

```
return(0);

}

demo_close(status)
int    status;

{
/* Note that all cases intentionally 'fall through' to the next depending */
/* Each case denotes a different type of application ending */
switch(status)
   {
   case 0:                  /* successful run of application */
   case 1: appl_exit();
   case 2: break;
   }
}

 main()
{
int    status;
if (!(status = demo_init()))
   form_alert(1, init_success);
demo_close(status);
}
```

Stephen Couchman is a software engineer, author of I*S Talk, and coauthor of the Isgur Portfolio program. Both packages are available for the Atari ST.

Stephen is interested in writing about specific aspects of GEM and 'C' that will be of interest to those of you who are writing your own applications that use GEM extensively. In particular, he would like to discuss using resources in your applications, including a complete explanation of the different object types, and their uses; using menus in GEM, including their very specific object definitions; using windows properly, putting up dialog boxes, etc. If there are any topics which you would like to have discussed earlier than others, please let him know, through RESET, and he will try to accommodate you.

PUBLIC BEAT

By Craig Trembly

Dcopy17.tos
a potpourri of useful utilities in one program
by Ralph E. Walden.

Startup.prg
a batch command startup program
by Murray Levine.

Autodate.prg
an automatic date setter
by Vanya J. Cooper.

Monopoly.prg
a freeware version of that all-time favourite
by David Addison.

Public domain software is exactly what it says: software intended for the public. It is usually found in one of two forms, 'freeware' or 'shareware'. The first is totally without cost and wide distribution is encouraged. The second involves a small contribution to the author in consideration of time invested.

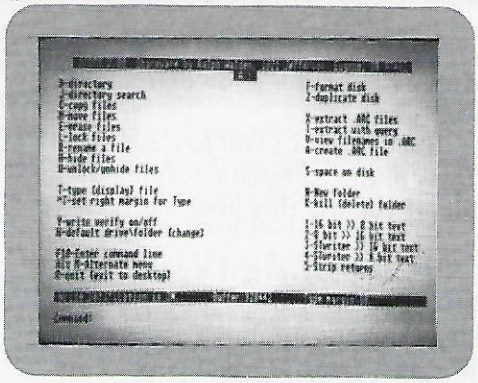
This contribution is usually mailed to the author's address which is supplied with the program.

The following public domain programs can be obtained from an Atari users bulletin board or from a fellow Atari user.

Dcop17.tos is a collection in a single program of frequently used utilities. The features include the ability to copy, erase, move, rename files, search, print directories to screen or printer, do multiple disk formats, hide and unhide files, lock and unlock files, list, validate and extract archived files .. and lots more.

This program was written in assembly language with Abacus' Assempro and is lightning fast in all operations. (Users who have encountered Arc.ttp know of its slowness in unarcing files. Despair no longer, Dcop17.tos is here. It will unarc almost twice as fast as arc).

Also, it will list all files within an archive and promptly tell you how much space will be required for the unarcing process. Wildcards are supported on most of these commands.

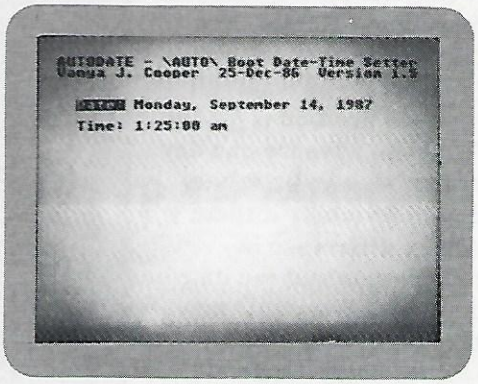


Dcopy 17

You have the ability to redirect output from the screen to the printer; this is helpful when you want a printout of a directory or of a typed file. These and other features make the program very worthwhile.

Walden requests $5.00 by mail from those who like and use his program.

Startup.prg is a batch file processor which, when placed in the 'AUTO' folder, will automatically execute a batch of commands (supplied in a file called Startup.inf). This file must be an ASCII file and can be created with most word processors such as 1ST Word, ST Writer (print to disk), Habawriter II, Word Writer and many more. Some DOS commands that you can perform with Startup.prg: change directory (cd), make directory (mkdir), remove directory (rmdir), display file (cat), copy file (cp), remove file (rm), etc.



It is possible to have the computer ask if you wish to execute a program. This is very useful when you are using GDOS which is not needed that often and sometimes conflicts with other programs.

As well, you now have the ability to load an uncompressed Degas picture when booting, a feature seen previously on the Apple Macintosh.

The program can read a string from the keyboard. This is handy if you want to set up a password entry system on your boot disc. Also incorporated are these handy features: conditional statements (if then, else, end if), resolution change, screen clear command, display on or off, and commented remark lines.

I have tested this program and use it extensively with the autobooting of my Supra hard disk drive in conjunction with The Hard Disk Accelerator from Beckeymeyer Development.
I would like to commend this program as an excellent public domain offering which, in my opinion, could compete commercially.

Autodate.prg is a not your average date time setter. Like the myriad of other date/time programs it runs from the 'AUTO' folder. The difference is that Autodate.prg has stopped me from asking for a battery backed

up clock for Christmas. Its ease of use and its totally original features have made me an instant fan.

Once loaded, the date is the first option that you must enter. Rather than typing it in the long way (you can if you want) all that you need do is hit the '+' key to advance one day or the '-' to go back one day. Obviously if there is a large difference in today's date and the date on the program, this may take a while.

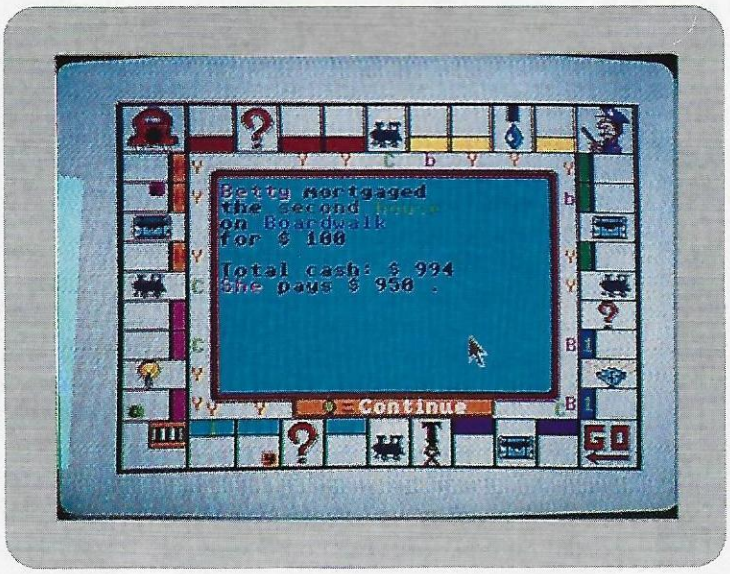
Normally the default date on the ST is November 20th, 1985, but once incorporated Autodate sets to the last day in which the program was run (saved in Autodat.inf).

You update as required when you turn on your computer.

Next you are asked to enter the time. AUTODATE will accept numerous formats for the time. You can enter 3:30PM in the following formats: (330PM, 1530, 3:30PM, etc.). The date and time are stored automatically in the real time clock in the intelligent keyboard controller. This makes the date and time reset survivable (Although a power failure the power will restore the Atari TOS default date, correctable by rebooting and following the above procedure).

As you can see, this program is most flexible and and easy to use. Another thumbs up, to the author of Autodate.prg, for a job extremely well done.

Please send $1.00 to Cooper, address in the Autodate documentation file, if you use this program.



Monopoly

Monopoly.prg is a compiled Michtron GFA Basic program that simulates the original Parker Brothers game of Monopoly. This version is true to its predecessor in the inclusion of all the familiar names such as Reading Railroad, Baltic Avenue and of course Park Place. This program runs only in low resolution (320 X 200) on an Atari SC1224 monitor.

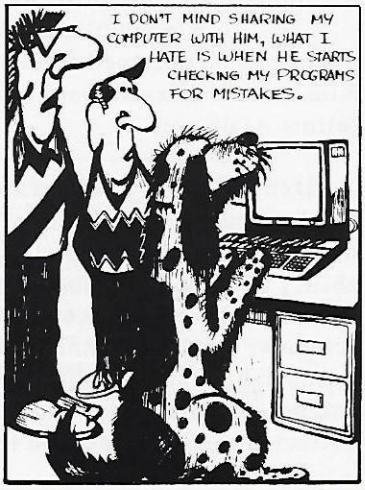
Monopoly.prg, curiously enough, was written on the Commodore Amiga in true basic then converted to Michtron's GFA Basic.

This monopoly is a one player game but you can play against as many as three computer opponents. The program will allow you to buy houses and motels and mortgage property. If you cannot meet your debts your biggest creditor takes over all of your property and assumes your mortgages.

A little note of advice, the computer opponents will grab the land and utilities so you must be quick. You can trade an unwanted street with another opponent to complete your set. But beware, the computer is always looking for a bargain. The program has excellent graphics and is very easy to use.

Thumbs up to Addison on this one, a victory for public domain. ■

Craig Tremblay is a sysop of the National Capital Atari Users' Group BBS.



AN INTRODUCTION TO GEM AND C PROGRAMMING

by Stephen Couchman

With every new magazine, and every new columnist for that matter, comes the question: what would the readers like to see discussed in the monthly columns? Since this magazine is directed at an audience which owns, or would like to own, Atari ST's; and since those ST's use the GEM interface, it seems likely that the response to a regular column on programming using GEM would be a favourable one. If it seems that I am unsure of this, it is the case only because I am making assumptions about people; and if there is one thing a programmer learns when it comes to people, and programs written for them, it is:

DO NOT MAKE ASSUMPTIONS!

If you say, "Oh, no one will want to do that anyway!", be sure that the first thing someone does when they use your program is that very thing.

In any case, my intention is to use this column to introduce you to some of the ways the ST can be programmed to make efficient and effective use of the GEM interface sitting in the ROMs in your Atari ST. This month, I will show you how to get started with a basic GEM program using 'C', giving an example (much like the typical 'Hello World' program you might write when just starting 'C' programming). This uses the parts of GEM that will most likely be present in any GEM program you may write. I will try not to make assumptions about the particular development package you are using because, from what I have heard, there are many people out there who have purchased either the Developer's Kit available from Atari, or one of the other packages put out by third party software vendors such as Megamax C, or Mark Williams C. (I will try my best to ensure that all examples will work with all of the compilers, but just so that you know, I will be testing all of my examples out on the Megamax system, since that is what I use exclusively.)

Why Use 'C'?

The question of why are we using 'C', rather than some other language, comes to mind, especially when you look at some 'C' code for the first time. There are many languages that are supported on the ST, but it stands to reason that the designers of GEM, and TOS had some logical reasons for putting support for 'C' calls in the ST. 'C' allows the programmer to get quite 'close' to the machine, so that he/she can, among other things, access a specific memory location in the machine very easily. This can be both a blessing and a curse since this freedom allows you to 'hang' the machine quite easily too! Anyone who has written programs on the ST already will most likely be familiar with the 'bombs' that are produced when your program does something it should not. (Probably the most common 'crash' is two bombs, which is produced when the program tries to access memory, in user mode, that is 'protected' by the 68000 microprocessor.)

The 'C' language gives most of the features in a language that a programmer will want, such as tests, loops, subprograms, and data structures, or ways to construct them, using structures (similar to Pascal records) and/or arrays. It is lacking in some features that many programmers would like to see, (such as character string comparisons, treating arrays as one unit, etc.), but any complete runtime library will make up for this, by giving you functions that will perform these operations. Any of the three 'C' compilers previously mentioned will form a complete development system when used as a whole.

One of the 'beauties' of 'C' is the abilities it puts in the hands of the programmer to ensure that the compiler produces code as efficiently as

possible. For example, consider the statement:

```
line_length = line_length + 2;
/* the variable line_length is
   defined as an 'int' */
```

This same statement can be written as:

```
line_length += 2;
```

In both cases the effect of the statement is to cause the variable 'line_length' to be incremented by two. The first statement is deemed inefficient, when compared to the second, because it causes 'line_length' to be accessed more than is necessary. (It has also been said that this is a problem with 'C', since two lines of code used to accomplish the same task end up producing two sets of assembly code, one more efficient than the other. I would argue that the problem lies, not in the language, but in the way that compilers generate code; but that is another column in itself.)

Another strong argument for the use of 'C' is the ease with which a "well-written" 'C' program can be ported between two different machines. A case in point is the program I*S Talk (of which I am the author), which was originally written on an IBM PC using 'C' and GEM, and then ported to the Atari ST. This approach worked quite well and is recommended for those programmers who would like to write applications for both machines.

Getting Down To It!

From my own experience, the best way to get used to a language is to jump right in, do some coding, and learn as you go along. The program shown in Listing #1 is a typical example of the 'C' code necessary to set up a very simple GEM application. In this program, the objective is to put up a message which tells you that the application has been successfully initialized (in the guise of a 'form alert', a GEM message form). At this point, in a real application, you would proceed with the program objective. The example is given to illustrate the necessary 'shell' for a GEM application, that is, the basics that almost all GEM applications need to successfully start. At the same time, the code illustrates some of the ways 'C' can be used to make coding your application easier. The first two lines of the program, DEFINE constants which, in this case, happen to be used as parameters to the function call which changes the form that the mouse takes. GEM has seven mouse forms predefined, which your application can use to indicate the present mode. References to GEM function calls, and features, can be found in the manuals that came with your Developer's Kit or other ST 'C' compiler, assuming that you have one. DEFINEd values are invaluable when using 'C', since they can be used to make your code more readable (ARROW is much clearer than 0), and to make changing of constant values infinitely easier than finding all occurrences of a number in many source files.

Next comes the definitions of a number of integer arrays which are used by the GEM function bindings. These arrays are initialized by the binding your application uses when you make a call to a GEM function to tell GEM what function to execute, and with what parameters. (A thorough discussion of the GEM bindings is left to a future column.) This is followed by the declarations of a number of variables that are explained in the accompanying comments.

The character arrays that follow are those used by the calls to the form_alert() function, that function which displays GEM alerts to indicate an error, or other message. The general format has three parts, each enclosed in brackets. The first part is a digit from 0 to 3 indicating the icon which you want your message to contain, a zero means no icon. The second part is the actual text of the message: its limitations are up to 5 lines of text, no more than 40 characters per line, with each line separated by the '|' ('OR' bar) character. (A 'bug' in this function limits the text to no more than 32 characters per line, even though the documentation states 40 characters.) The final part is the text of the buttons which will be displayed in the message: there must be at least one

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button, and no more than three; each separated by the '|' character, and the text of each button must be no longer than 20 characters (according to the documentation).

The function demo_init() is used to initialize GEM, and set up a work station that can be used by the application to place data on the screen. The function first requests that GEM initialize the application, which causes the application to get access to GEM functions. (An error in the bindings included with the Developer's Kit, and other 'C' compilers, has this function returning the wrong value for the appl_init() call. To determine if you have these bindings, declare the variable 'gl_apid' to be external, rather than global as this example does. If your linker tells you that 'gl_apid' is 'unresolved', your bindings have probably been fixed; if you do not get this message, then you need to change the call to this function to:

```
appl_init();
if (gl_apid == -1)
   return(2);
```

This is necessary because the erroneous bindings declare a global variable 'gl_apid', and assign the correct value to the variable before returning. The function always returns a constant, rather than the application's ID.)

The remainder of the function is concerned with getting information from GEM concerning the type of screen the application will be working with, such as a colour or monochrome monitor, since each has different resolutions and supports different colours. These calls are not necessary to the successful running of this example, but they are here to illustrate their use since any application which deals with the screen will need to use them. When this function, which is called by the main() function, returns successfully, a message is put up indicating that the initialization, and this entire application, has worked.

Listing #1:

```
/* define mouse form numbers */
#define ARROW   0
#define BEE     2

/* arrays used by GEM bindings to set up function calls */
int     contrl[12];
int     intin[128];
int     ptsin[256];
int     intout[128];
int     ptsout[128];

int     gl_apid,                    /* number which
identifies application */
gl_wchar,/* width of a character in pixels */
gl_hchar,/* height of a character in pixels */
gl_wbox,/* width of box around a character, in
        pixels */
        gl_hbox,
/* height of box around a character, in pixels */
        gem_handle,/* physical handle */
        vdi_handle,
/* virtual handle(used in most VDI calls)*/ work_out[57]; /*
information about work station (screen in most cases) put
here */

 /* definition of messages used to indicate errors, or other
     messages to the user */
char                    *init_err =
"[3][Unable to open a work station|Fatal Error!!][Abort]",
     *init_success =
"[3][Successful first 'app'.|Good luck with the next one!!][ OK
]";

int
demo_init()
{
int  i,work_in[11];

/* ask GEM to initialize the application, -1 means fatal
error*/ /* this call MUST be successfully made before
ANY other               GEM calls */
if ((gl_apid = appl_init()) == -1)
     return(2);

/* change mouse form to a 'BUSY BEE' to indicate system
     is busy */
graf_mouse(BEE, 0x0L);

/* get handle which identifies the physical screen being used*/
gem_handle = graf_handle(&gl_wchar, &gl_hchar,
     &gl_wbox, &gl_hbox);
vdi_handle = gem_handle;

/* set up array to indicate we wish to open a virtual work
    station on the screen, this is used for illustration. Open
    if you are going to write to the screen */
for (i=0; i < 10;)
    work_in[i++] = 1;
    work_in[10] = 2;
/* ask GEM to open virtual work station */
v_opnvwk(work_in, &vdi_handle, work_out);

/* if none are available, GEM returns a ZERO as the handle*/
if (!vdi_handle)
     {
     form_alert(1, init_err);
     return(1);
     }

/* change mouse form, since initialization is finished */
graf_mouse(ARROW, 0L);

/* initialize if successful, so return */
```

Continued on page 48

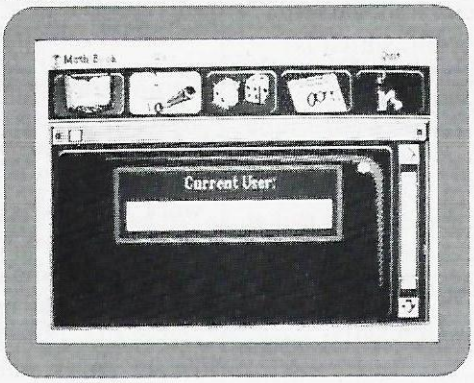
SCHOOL BUS COMPUTING

Steve Webb

When our family decided to buy a computer, we said we would hardly ever play games. We would use the educational software. Nevertheless, at first our parents let us just play games because there was very little educational software available. We can no longer hide. So much educational software is out for kids that we'll have to use it. Let's begin now. Some good ones are: Math Talk, one in a series of talking educational software; Decimal Dungeon, good for the younger ones; Math Wizard, an interesting game with a magical twist (educational too); and Typing Tutor, a game to learn creative typing. There are also other types of games that sneak in learning like Donald Duck's Playground and Winnie-the-Pooh.

The ST was first introduced with very little software for adults or children, but parents looked for a computer with a variety of software and games for all ages. Although the ST was sold as a family computer, all kids could really do was play around with the pull-down menus on their daddy's word processor or doodle in different colours. Within the next couple of months the software piled up like the "IN" work on Ziggy's desk even though most of it was ported across from other computers. More and more people bought the computer because of the software as companies began to write especially for the ST.

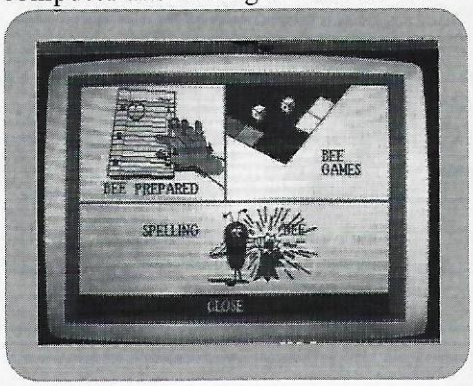
When we kids first saw the early computers, we all had different ideas of what could be done with them. I'm sure most kids fantasized about the computer, even actually talking to it. That vision died as almost all kids got their computers and started playing. But, when Rainbird released Starglider about six months ago, our dreams come true. Although the co-pilot didn't say much, it was still a big step. At about the same time a public domain version of the talking computer was made available. It wasn't perfect. I soon discovered you had to alter the words a bit to get the computer to say them right, but I enjoyed listening to a French computer accent.



Math Talk

Then it came. First Byte presented us with "Math Talk", A learn-and-show-off-your-great-computer game. Before I knew it, I was sitting back and LISTENING to the computer tell me what to do. Math Talk is one of a series of talking games designed for little children. Included in the program are two math games that allow you to use your own math page or play the ones built in. You can also keep records of the awards and scores for every child who plays.

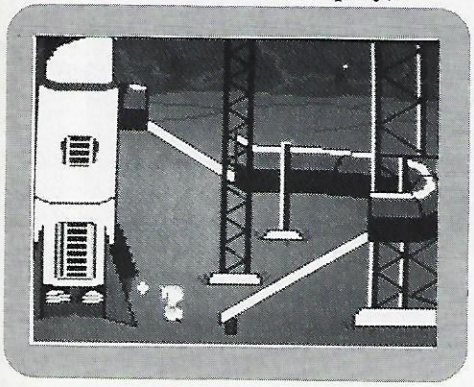
But the real advantage is in the talking. Every time the computer prints something up on the screen it says it in a type of silly accent. A parent or friend can help a child learn math with the child listening to the computer and telling it what to do.



Speller Bee

Also in this series is "Speller Bee", a program which lets you make your own spelling lists and of course lets you save your characters for awards and the high score. The third program is "First Shapes" for the youngest ones. Even though I'm eleven, I love this game. One of the main features is the Toy Factory in which you can make hundreds of different toys and store the ones you like in a Toy Box. This series is a definite yes. It may sound appropriate for younger kids, but you'd be surprised at some of the lists in Speller Bee or the higher levels of the games in Math Talk.

Another great thing about children's software for the ST is what the programmers are able to do with the graphics. The colours and resolution make it easy to identify objects and pictures. The games are always improving, but some of my favourites are: the Sierra series (I love the way the 3-D graphics are done); The Pawn (the picture detail is so good); and Time Bandit or Warzone (the graphics looked somewhat the same but Warzone is a lot harder to play).

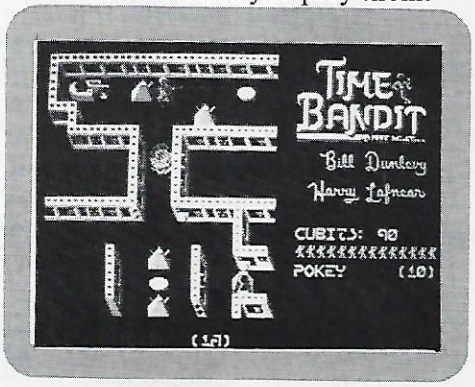


Donald Duck's Playground

I think all Sierra games are educational because they teach you to solve problems, type and do arcade movements, but they recently released Donald Duck's Playground for the younger ones. I think this is the funnest educational game. The object is to work at various jobs (arcade sequences), buy playground equipment (handle money), and then play at the playground (be rewarded). Another release is Winnie-the-Pooh; one of my favourite game theme songs. This game does not use the joystick but still has colourful graphics and detailed sound. The object in this game is to control a player and find the ten lost wind-blown items and return them to there rightful owners before the next storm.

Winnie the Pooh

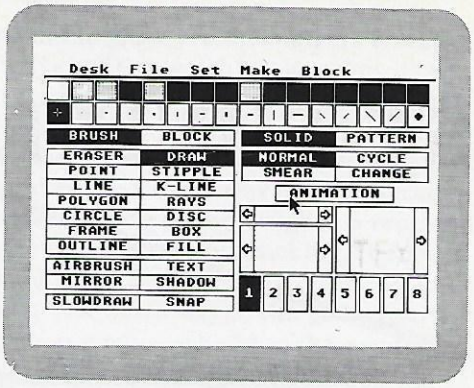
In the world of the Atari ST, there are three types of games; all text, all graphics, or both. Most all of the text games are developed for older people (ages fifteen to thirty years). Infocom is the biggest source of these games. The thing with Infocom is you either love or hate the game, but I found even if you love it, it can become boring. I also think graphics-only games are boring at times, but some people really love arcade games. What I'm trying to say is a kid's game (for ages ten to fifteen years) should have both text and graphics. I'm not arguing with anybody who thinks otherwise, but those games I THINK are the are the ones to buy for kids are Kings Quest I-III, Time Bandit, Fantasie, SunDog, Mercenary and games that can be different each time you play them.



Time Bandit

Another area kids can get into besides educational software and games includes drawing programs. Some of them might be a bit advanced but if you stick with it you can learn to create computer images with your mouse. Although many drawing programs have been released, the most sophisticated is Degas Elite and the easiest to use is Neochrome.

If drawing the whole process of a card or banner etc. doesn't turn your crank, Print Master will. I found this a very easy way to make a card, or anything else for that matter. When you boot up the program, it gives you the option of what you want to make. For instance, if you choose a card, you will be prompted to choose a border, graphic, and text for the inside and outside. If you wish to include one of these, you will be given a wide variety of whatever you choose (or in some cases, design). After, if you choose text as one of your options, you can choose a style and go to the workscreen to decide what to print. The only problem I found was you can't see what you're making in the workscreen and sometimes graphics or borders may cross the text, making a big mess. To avoid that, you have to plan ahead. For more graphics, borders, and text, you can use Art Gallery disks which include more items.

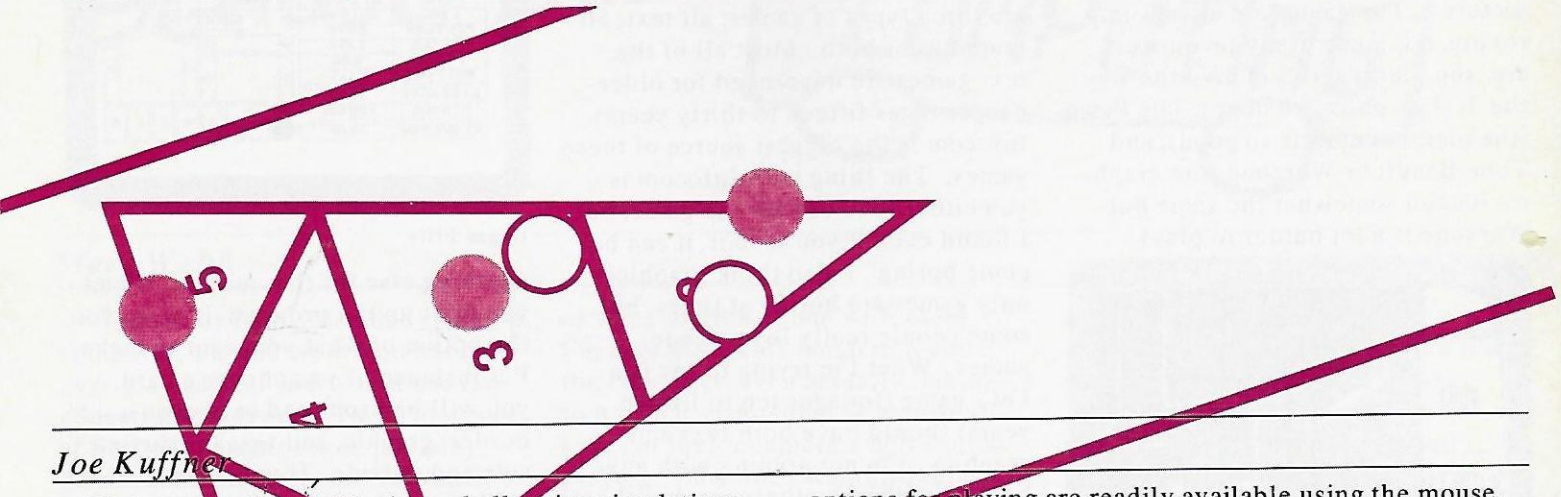


Degas Elite

If you look at the ST from afar, you'll see a developing computer with games and word processors coming out of it's ears. In the long run, the ST is a powerful contender in the world of computers and will keep my dad going for eons to come. ■

Eleven year-old Stephen Webb is one of the new generation of computer enthusiasts who have literally grown up with the machine. Even though school and other activities have exposed him to many types of machines, his favourite brand is obvious. Stephen has also written a number of reviews of game software for user magazines and spends many hours solving adventure games.

ST-SHUFFLEBOARD



Joe Kuffner

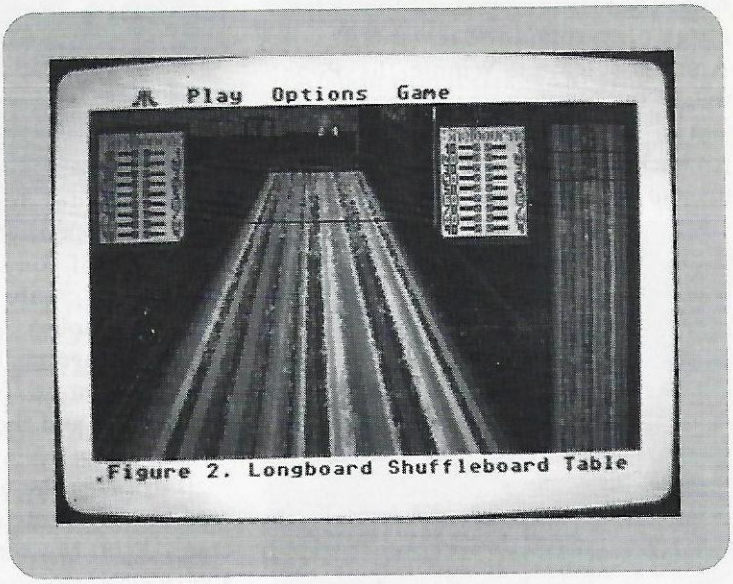
Welcome to the world where challenging simulations replace their real-life namesakes for human entertainment. Gone are the halls and parlours of the 20th century where social gaming events were commonplace. The reason: the advent of personal computers as powerful and inexpensive as the ST series of computers from Atari and the arrival of excellent parlour game simulations such as the new release from Shelbourne Software Systems, Inc., ST-Shuffleboard.

ST-Shuffleboard is much more than a simulation of the classic game of table shuffleboard. In fact, simulation is an understatement. It is a replacement for conventional shuffleboard. It accomplishes this transition by incorporating all of the vital aspects of a simulation, enhancing them, and then adds features not available with the original game.

Inside the packaging you will find the usual warranty card and program disk along with the program instructions and an official publication from the American Shuffleboard Company, How to play American Shuffleboard. The latter is presented to provide you with all of the rules for the many variations of playing shuffleboard as well as tips on strategy and technique, and a glossary of shuffleboard terms. The program instructions are a clear and concise guide to the features of the program and how to use them. Also provided are instructions on how to set up a house league for playing tournaments. All of this shows the thorough planning that went into this program prior to its release.

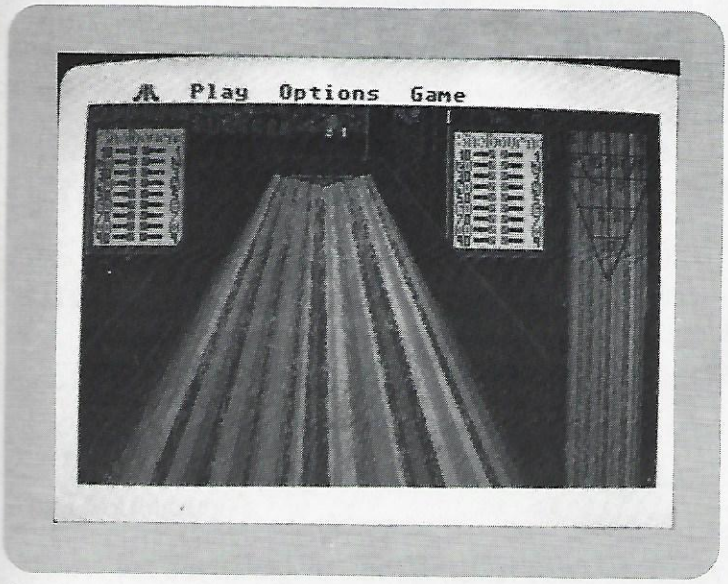
Let's get on with the actual play. After booting up the program, you are presented with a true perspective of the shuffleboard table as well as a top view of the last half of the table. Also seen are the scoreboards for each player or team. At this point, you select your opponent to be human or computer as well as the type of game you wish to play. Using a fully GEM integrated menu system, all of the options for playing are readily available using the mouse. Five of the most common variations of shuffleboard may be played. My two favourites are Straight (or Hangers) and Deck. The latter is similar to that played on the ground at your local park.

Throwing the weight is accomplished by using the mouse as if it were the weight. This is the feature that makes this game so lifelike. You actually have the feeling that you are pushing a weight. The smoothness of the throw combined with the suspense as it decelerates have your eyes glued to the monitor. I've found that best results can be had if you stand up and face the monitor. Not only does this make the game more lifelike, but also it will improve your game by making your throws more consistent. You should turn your mousepad, if you use one, so



The Long Board table

that it is longest in the direction of the throw. Also, it is important to match the speed of the weight to that of the mouse using the appropriate option. One small flaw with the program, however, is the inability to save your ideal settings to disk. To overcome this, you'll just have to re-



The Cusion Board table

member them, and install them each time that you play.

You are able to establish the slipperiness of the playing surface, by adjusting the amount of "corn starch" that is applied to the table. You do this using a slide bar, similar to that used on the Control Accessory for mouse response. The use of this option gives quite a range of effects. If you find that your adjustments to the weight/ mouse settings don't give you satisfactory results, then this feature will likely do the trick. Another important instruction: be gentle with your mouse, as with any game which uses the mouse. It is an expensive device to replace. Besides, jerky and quick mouse movements result in random throws.

The skill of the computer opponent is refreshingly modest. There is nothing worse than playing a game in which you always lose to the computer. With this in mind, it is very entertaining playing against the computer. The fact that it is adjustable makes it that much better. However, just as in the real game of shuffleboard, it will take a great deal of practice to throw your weights with the consistency required to win. There is a feature built into the program that will help you along, in this regard. By using the 'ALTERNATE' key, you will be able to lock the direction of your throw into place so that you don't get any last second wrist action. Wrist action is very important in the play of shuffleboard, however, and you can put "English" on the weight by substituting the left 'SHIFT 'key and the 'CONTROL' key. These keys allow you to curve your shots. Naturally, the faster you throw your weight, the less effect the "English" has. Before you use "English" on your throws, you should master a straight throw.

Yet more realisms in the game are the hangers on the edge of the table, the feel of the weight as it makes its way down the table (you never know if body English helps the shot!) and the wood grain of the table. Missing from the realism, however, are the sounds associated with the game. The "humming" sound as the weight travels is replaced with silence. The clicking of caroming weights is replaced with somewhat unimpressive computer clicking.The most important missing sound effects for me are the cheers and jeers of the opponents. Not necessary to the game itself, the presence of these features would add to the excitement. The solution: make your own sounds!

Some of the features that I like about this program over playing the real thing, are: an opponent (the computer) is readily available, the space requirement is much less providing you already own a computer, and you aren't always walking from one end of the table to the other.

I am very impressed with the programming of ST-Shuffleboard and the use of the mouse for throwing the weights. The combination of realistic graphics and effects with easy playability make this program a winner. If you like shuffleboard, you'll love this simulation. And at $39.95, its less than a tenth of the price of a real shuffleboard table. Good work from Shelbourne Software Systems, Inc. ■

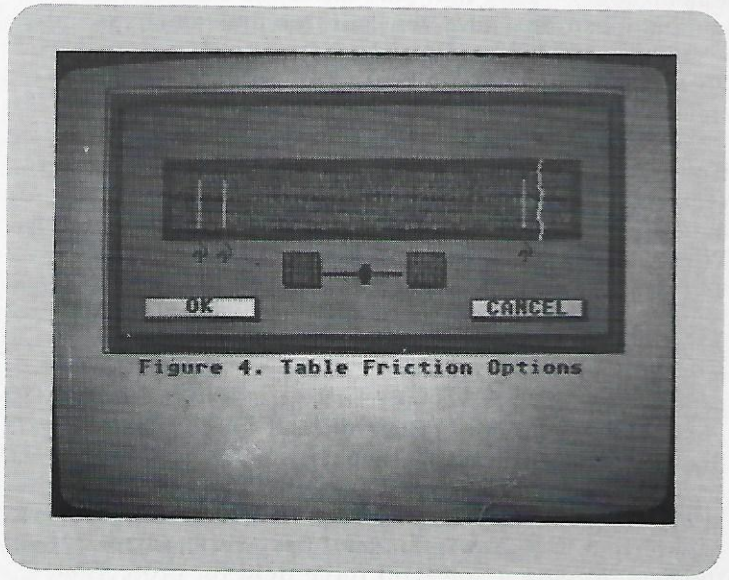


Table Friction options

ST Shuffleboard
Shelbourn Systems, Inc.
$39.95 US

Joe Kuffner, a columnist for Current Notes which is an Atari newsletter in Washington D.C., is an engineering graduate of Carleton University. He is an active participant in Washington's ST User Clubs, specializing in word processing and parlour game software.

by Ross Judson

I love 3-D games. I also love combat games. So when a game comes along that puts me at the controls of a combat machine, and gives me three dimensions in which to have fun, my initial reaction is always positive. Fortunately, with Arctic Fox , my first impression was right.

Arctic Fox is a simulation tour de force from Electronic Arts, the company behind the Amiga that has now recognized that Atari owners represent a substantial market. Electronic Arts can no longer afford to ignore us. When I was asked to review Arctic Fox I had an immediate interest, because I have played the game extensively on the Amiga personal computer, as well as the Atari ST . In this case, I am happy to report that EA (or more precise Dynamix , the authors of the package), have produced an ST version nearly identical to the Amiga version. The two minor differences I found will be discussed later.

The basic scenario behind Arctic Fox is this: the aliens have invaded the earth again. This time they have set up shop in the wastelands of the Arctic, surrounding themselves with a powerful force field for protection. They have initiated a process of converting the earth's atmosphere into one more to their liking, which unfortunately doesn't include oxygen. Earth's forces have succeeded in placing one combat machine inside the force field. You are the pilot of this vehicle. It's your job to save the world.

Let me make it clear from the start that Arctic Fox is not the average, wire frame, three dimensional simulation. Arctic Fox includes accurate, shaded in three dimensional effects. You are not a voyager in the land of coloured lines and blackness this time. You are in a full colour landscape with all features accurately depicted. Tanks appear as tanks, not line diagrams you can see through. As a programmer I can appreciate the difficulty involved in this type of simulation, and I applaud this important step forward in three dimensional games.

The Fox has a number of weapons capabilities, including cannon shells, guided missiles, and land mines, all at your disposal. Handling the Fox is a bit tough at first, as you get used to coordinating your cannon inclination with forward motion, but the system is fairly intuitive.

You are in a full colour landscape with all features accurately depicted.

There are three levels of play. Training is the place where all first time drivers should start. It includes a number of options designed to let you feel out the capabilities of your combat vehicle, such as making the Fox invincible, making the Fox travel at higher speeds, and weather controls. Beginner mode doesn't let you give the Fox any special capabilities, but the enemy definitely isn't as smart as could be. Tournament mode is what this game is really all about, and you can be sure that the aliens will throw everything they have at you in the numerous scenarios provided with the game.

Weather? Did someone say weather? That's right, the Arctic Fox world comes complete with lightning storms and blizzards, guaranteed to irritate you no end while you create your tactical masterpiece. The lightning storms disrupt your radar, and give spectacular displays

of the lightning in a darkened sky. Blizzards cause visibility to drop to near zero, and predictably enough, everything is covered with snow when visibility climbs again.

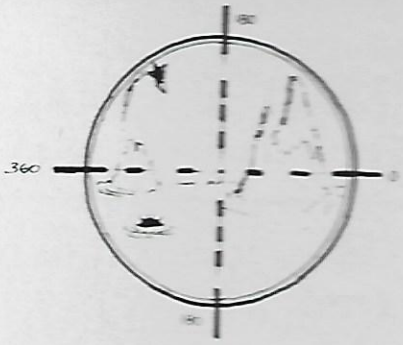
The landscape itself is a work of art. The battle-ground in Arctic Fox has been meticulously designed with ridges, mountains, snow fields, ice fields, rocks, mud flats, and crevices. All of these three dimensional

Radar stations will spot you from seven miles away and report your position to every unit in the area, bringing down an onslaught

terrain features have effects on the motive power of the Fox, and the manner in which you engage the enemy. Besides, as indicated in the manual, it's fun to drive up and down the ridges.

There are a large number of enemy vehicles, both airborne and ground-based, including light and heavy tanks, recon sleds, recon planes, fighters, floating mines, air converters, missile launchers, communications forts, radar stations, and last, but definitely not least, the infamous MAIN FORT. The main fort is, of course, your final object of destruction in this game. To get to it, though, you'll have to battle your way through the defensive (and offensive) forces of an enemy that is quite intelligent.

The tanks constitute a force that is fairly easily handled, but their numbers can increase the damage to the Fox surprisingly quickly. Missile launchers send a guided missile that does heavy damage when it hits.



Fighters are the most dangerous adversary because of their powerful shells and high speed, which makes them extremely difficult to hit. Radar stations will spot you from seven miles away and report your position to every unit in the area, bringing down an onslaught. Recon sleds and planes have one objective: to find you, and report your position to all the units in the area. In the higher levels of play, they will tag the Fox with a radar beacon, so that all units in the area will know your location.

This is one of the intriguing facets of the game. The enemies have a communications system, and when they know your location they will make use of it. Quite realistically though, you are given an opportunity to fight back. If you eliminate a communications fort, you disrupt the enemies' capabilities in that area.

All in all, I have spent at least 50 or 60 hours in front of my monitor, cursing when I drove into a crevice, and cheering when I picked off a fighter. This is the first game I've played on the ST where I actually felt I was right in the action, partially because of the attention to detail in the graphics, and partially due to the design and realism of the enemy forces.

How does it compare to the Amiga version? Well, in terms of speed it's virtually identical. The Amiga has a pair of hands (seen on the packaging), that emulate all the control movements you make. These hands are not present on the ST version of the game. Another difference is the colours. The ST physically does not have as many colours to display as the Amiga, so the fades that occur when entering a blizzard or a lightning storm are not as smooth. But these are extremely minor points. Arctic Fox is a first class simulation, and a first class game. Let's all give our support to this level of work.

Arctic Fox
Electronic Arts
$49.95 Cdn.
$32.95 US

Ross Judson is studying computer science at Carleton University, specializing in management and business. He is very interested in stereo equipment, and, of course, computers.

Author's Guide

(How to Submit Articles for RESET Magazine)

RESET Magazine is looking for contributing authors. All submissions will be considered.

Introduction

We are looking for authors interested in submitting articles for inclusion in RESET Magazine.

We are particularly interested in receiving articles on how to use specific hardware, software, and application concepts. Since RESET is a quarterly magazine, we prefer articles short enough to fit in one issue and that do not require a sequel next issue.

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RESET is produced electronically; therefore we request that submissions be made on single sided 3 1/2" disk, ST format. Please indicate on the disk label the names of the files on the disk, along with a brief indication of what types of files they are.

A typed paper copy of submitted files is also important. We all know how easy it is to lose a paragraph, delete words, or misplace punctuation on a file. With a paper copy we can see what the electronic file is supposed to look like.

Although files from just about any ST word processor are acceptable; we prefer submissions to be in First Word or Word Writer format. Please do not right justify text or send ASCII files, as this creates problems when editing and converting the files for importing into Publishing Partner.

With every submission please include your name, a self-addressed stamped envelope, telephone number, and a short biography. The biography should state your experience with the Atari ST, your background with computers, your special expertise, and any other relevant information.

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We encourage the use of graphics in submitted articles. These graphics can be colour or monochrome original art, conventional or computer generated; or can be colour or monochrome screen dumps created using snapshot utilities. Please state any particular characteristics of submitted graphics.

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Conclusion

All submissions will be considered. We look forward to receiving your articles, and artwork. Feel free to write us with any proposals or ideas that may benefit our readers. More information is available upon request.

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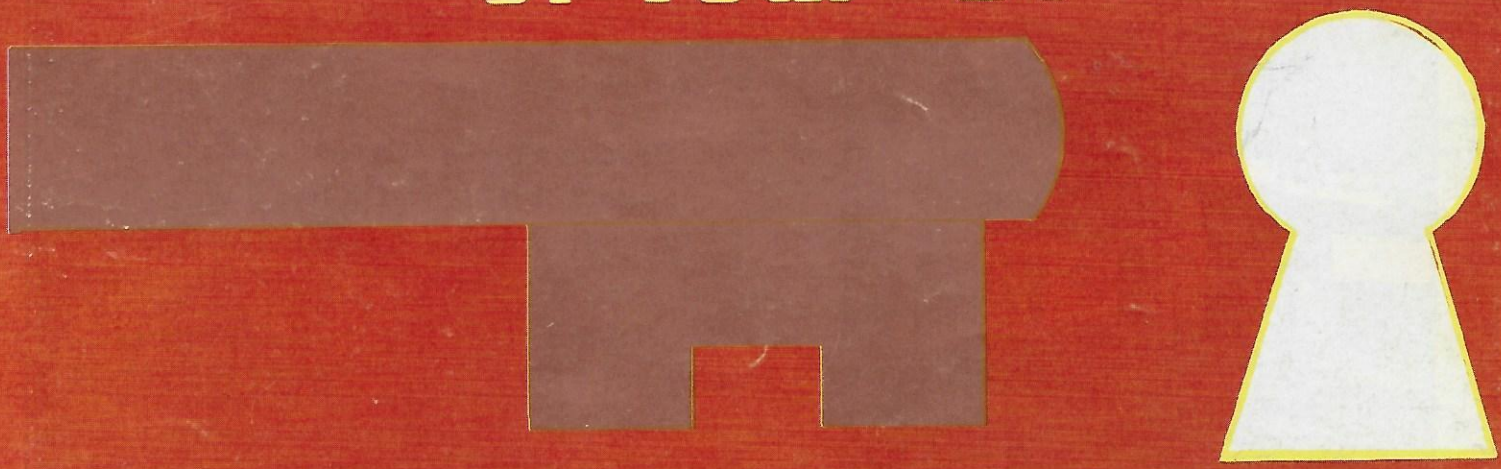

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